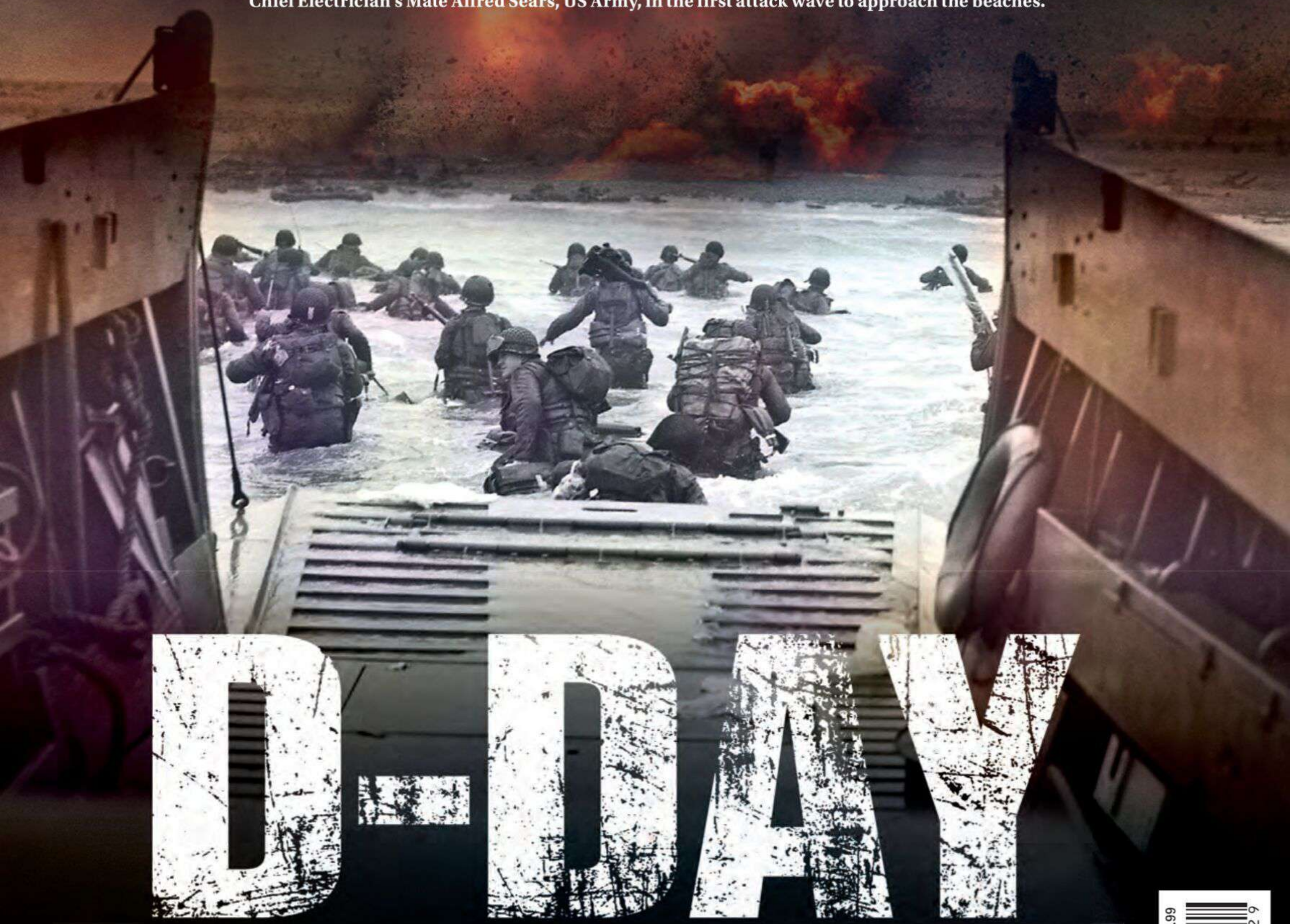
NEW
D-Day Special

EYEWITNESS TO HISTORY ★ EXCLUSIVE CONTENT

Bringing History to Life

"The soldiers in the boats received a hail of machine-gun bullets. The Army lieutenant was immediately killed, shot through the head."

Chief Electrician's Mate Alfred Sears, US Army, in the first attack wave to approach the beaches.



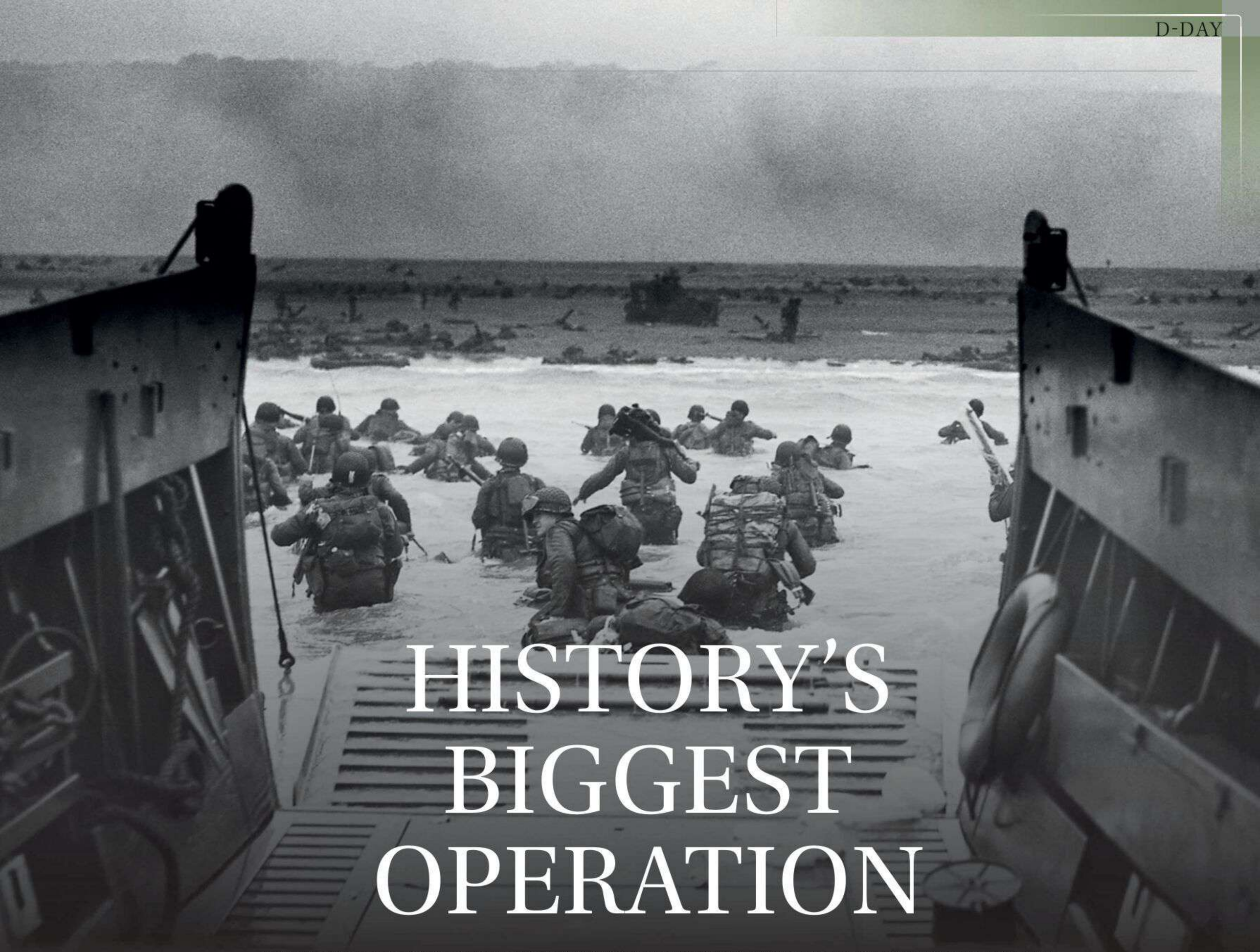
D-DAY

★★★

THE BIGGEST INVASION OF ALL TIME

HITLER DUPED BY DUMMY ARMIES ★ 156,000 MEN ATTACKED ★ INVASION STALLED

£9.99
9 772445 665014 29



HISTORY'S BIGGEST OPERATION

At 01.00 on 6th June, 1944, Private Marcus Heim dropped from a C-47 transport plane over Normandy. His mission, along with three others, was to capture the strategically important La Fière bridge and hold it until the Allies could advance and cross the River Merderet. The mission succeeded and the four men were later honoured for their efforts. Heim was just one of 20,000 paratroopers who dropped behind German lines the night before D-Day. After them, in the early hours of the morning, came more than 100,000 Allied troops who stormed the five beaches targeted for invasion. D-Day was the largest operation in military history and months of training and misdirecting the enemy preceded it. Not all the Allies' plans held: the first men on Omaha Beach were slaughtered by German artillery. In the end, though, over 156,000 men succeeded in landing before D-Day was over. The Third Reich was now under pressure on all fronts.

CONTENTS



1. PRELUDE TO D-DAY

Page 12 Stalin demanded a new front be opened to lure German forces away from the Eastern Front, and in 1943 the plans for Operation Overlord took shape.



2. THE ATLANTIC WALL

Page 20 Hitler accepted the prospect of an Allied invasion, believing his 3,800-kilometre-long Atlantic wall created an impregnable defence.



3. THE GREAT DECEPTION

Page 28 Double agents, fake tanks and corpses with false orders misled the Germans to believe that the invasion would take place somewhere else.





6. NORMANDY LANDINGS

Page 54 At 06.30 on 6th June all hell broke loose. Shells rained down, while boats with a total of 150,000 soldiers approached five selected beaches.



7. UNIQUE WAR MACHINES

Page 66 The landings on Normandy's beaches needed specialist equipment such as tanks that could sail, spew fire or lay reinforced carpets.



10. DAILY LIFE IN THE SHADOW OF WAR

Page 90 Civilians in war-torn Europe tried to live normal ordinary lives despite bombs, bloody showdowns and hunger.



11. LOGISTICS OF WAR

Page 98 Behind the invasion, engineers, ground workers, chefs, and nurses worked to deliver fuel, food and care to the soldiers at the front.



4. FRANCE REBELS

Page 38 The French Resistance sabotaged phones and railroad lines so that the Germans could neither communicate nor gain reinforcements.



5. THE NIGHT BEFORE

Page 46 The night before 6th June, the first troops were dropped over Normandy to pave the way for their comrades who would go ashore at dawn.



8. THE DAYS AFTER

Page 74 The Allies had come ashore, and now they needed to occupy the main ports and cities. But the advance proved not as easy as expected.



9. YOUTH UNDER FIRE

Page 82 It took several hours before the Germans counterattacked. When they finally did, the 12th SS Panzer Division "Hitlerjugend" took the lead.



12. GERMAN DEFEAT IN EAST

Page 106 The Germans needed to be hard-pressed on all fronts, so the Soviet Union launched an offensive in the wake of D-Day. The Red Army stormed west.



13. NEXT STOP: PARIS

Page 114 Over a month after D-Day, Normandy was finally secured. What next? Paris or Berlin? An uprising in Paris determined the Allies' choice.

D-DAY

Publishing Director: Niels Jespersen
Editor-in-chief: Hanne-Luise Danielsen
Production: Pernille Aagaard
Cover: ITV/REX/Shutterstock
Translators: Lynda Johnson, Nick Peers, Toni Baxter, Karen Levell

Bringing History to Life is published by:
Bonnier Publications International AS,
PB 433, Sentrum,
0103 Oslo, Norway.

ISSN: 2445-6659
Printed by: Poligrafijas Grupa
Mukusala, Latvia

Marketing/Distribution UK and Export:
Marketforce (UK), 2nd Floor, 5 Churchill Place, Canary Wharf, London E14 5HU
Tel: +44 (0) 20 3787 9001
www.marketforce.co.uk

Licensing and Syndication:
Regina Erak – regina.erak@globalworks.co.uk Tel: +44 (0)7753 811622

All rights reserved. Reproduction in any manner or form is strictly prohibited without the prior written consent of the publisher. Whilst every care is taken with the material submitted to this bookazine, no responsibility can be accepted for loss or damage. Whilst every effort has been made to contact all copyright holders, the sources of some pictures that may be used are varied and, in many cases, obscure.

The publisher is happy to make good in future editions any error or omissions brought to their attention. The publication of any quotes or illustrations for which authorisation has not been given is unintentional.



1941 // *Britain recruits double agents*



1942 // *Attack on Dieppe ends as a bloody failure*

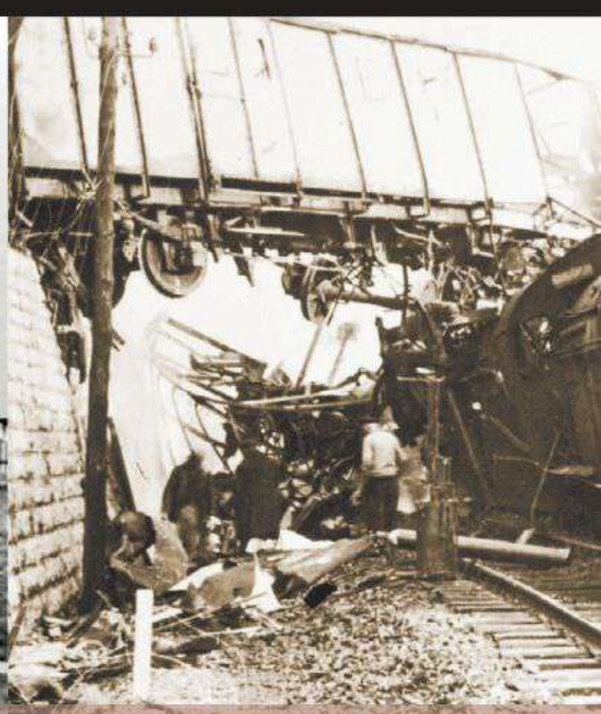




1943 // *Eisenhowers heads up D-Day*



1944 // *Germans misled*



1944 // *Railway sabotage*

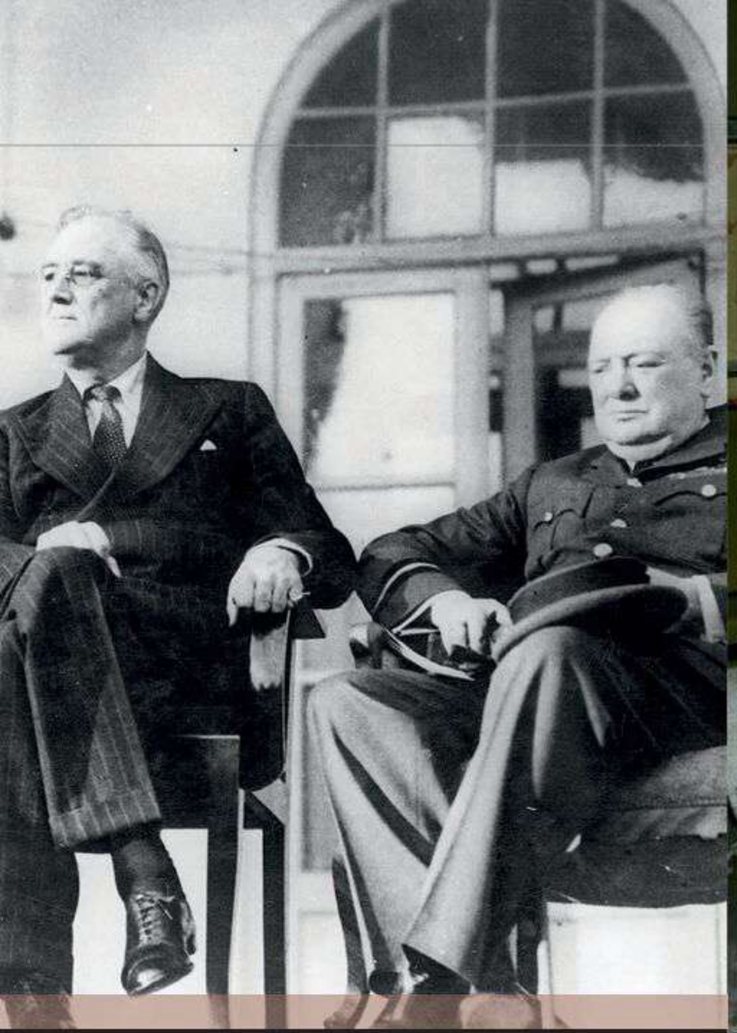
Preparations

DOUBLE AGENTS AT WAR

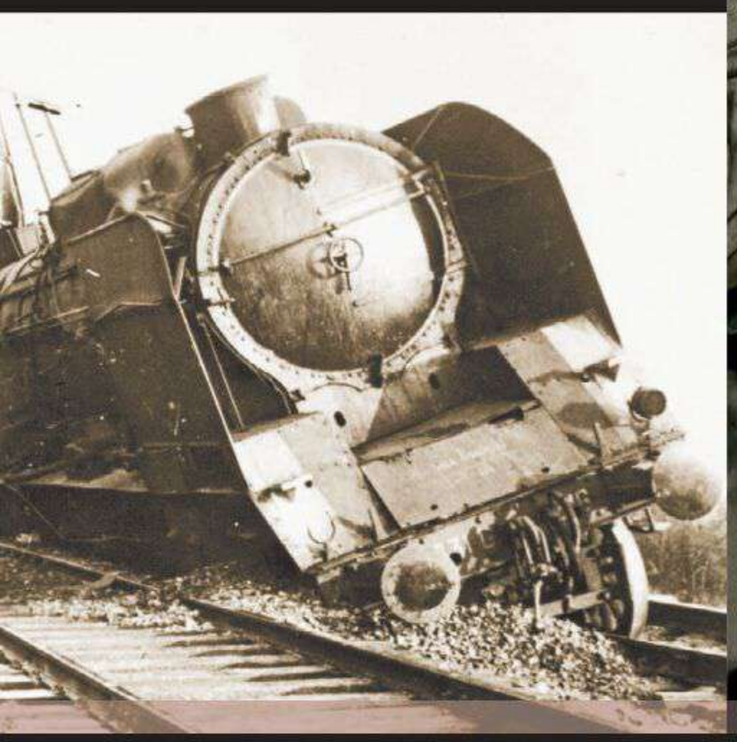
1941 The British intelligence service, MI5, secretly hired German agents to work for the Allies. One of the most important double agents was the Catalonian Juan Pujol, codenamed Garbo. From his hideout in Lisbon, Garbo fed false information to *Abwehr* (the German secret service). In order to maintain credibility, he also provided genuine reports of Allied actions, but these were always sent just too late for them to be of strategic use. For example, he revealed the plan to invade Normandy on the 6th June, when the Allies were already on the beaches. During the war, 50 individuals worked in secret as British double agents.

TEHRAN CONFERENCE

1943 The three main Allied leaders – Soviet premier Joseph Stalin, British prime minister, Winston Churchill and US president, Franklin D Roosevelt – met in Tehran. The objective at the conference, which was held between 28th November and 1st December, was to agree a strategy for overcoming Hitler's Germany. Stalin, who was being hard pressed on the Eastern Front, demanded that the Allies open another front. At the Tehran meeting, his demands were met. The leaders agreed to attack the Nazis following an invasion from the west. The offensive would take place in May 1944 and would be called Operation Overlord.



1943 // *Tehran Conference*



1944 // *Allied paratroopers*



ATLANTIC WALL STRENGTHENED

1944 Since 1941, when Hitler first ordered the construction of a defensive system along the entire Atlantic coast from northern Norway to Spain, bunkers and concrete barricades had sprung up beside the continent's western beaches. When Field Marshal Erwin Rommel took over responsibility for the defences in November 1943, the Atlantic Wall became the death-trap defence that Hitler wanted. In the spring of 1944, Rommel ordered 5-6 million landmines buried in and around the beaches that fringed the defensive system. The Germans were resolute that the Atlantic Wall would stop any attempted Allied invasion.

RESISTANCE IN FRANCE

1944 On the night of 6th June explosions tore up railway lines at more than a thousand locations across occupied France. At the same time, power station generators failed and telephone lines went dead. German troops stranded on trains couldn't contact other units. The systemic sabotage was the culmination of the French Resistance's build up to D-Day. Throughout the war, rebel groups had secretly protested and fought the Germans, but in the spring of 1944, resistance efforts intensified. The British had parachuted over a thousand tonnes of weapons to French fighters and thus equipped the resistance movement for the decisive blow.



1944 // *Paratroopers begin the battle*



1944 // *'Cricket' identifies friend from foe*



1944 // *Allies go ashore*



1944 // *Specialist tanks occupy the beaches*



1944 // *Death traps on the beaches*

D-Day

SOLDIERS DROP FROM THE SKY

1944 Shortly before midnight on 5th June, hundreds of DC3 Dakota aircraft took off from runways in southern England. On board sat over 20,000 Allied paratroopers who would parachute into France in the next few hours. Their mission was to confuse the German occupying forces and take bridges and other strategic points ahead of the invasion the following morning. Despite having turned off their lights and flying low to evade German radars, the planes were still detected and fired upon by German anti-aircraft defences. Many died before they reached the ground but the mission succeeded.

NORMANDY LANDINGS

1944 Since daybreak on 6th June, German guards at the northern end of the Normandy coastline had squinted at an indefinable grey mass out at sea but as the mist lifted, the outlines became clear: hundreds of Allied ships heading towards the coast. At 06.30, the bow of the first landing craft touched the beach, and hordes of armed soldiers poured into the surf of Omaha and Utah Beaches. Troops soon followed on Sword, Juno and Gold Beaches. German defence positions counterattacked, but the Allies fought across the beaches. Reinforcements arrived and 150,000 Allied soldiers were ashore by the end of the day.



1944 // *The wounded*



1944 // *Allied reinforcements move in*

HOBART'S FUNNIES IN BATTLE

1944 The Normandy beaches were packed with mines, the Atlantic Wall's concrete barricades towered over the coastline, while inland deep anti-tank trenches had been dug to slow down the invasion. Fortunately for Allied soldiers, engineering troops led by Major-General Percy Hobart had specially designed tanks that could overpower such obstacles. One tank was able to detonate mines under the sand, a second was armed with a flamethrower with a 100-metre range, and a third was able to lay a 'carpet' on the beach to create a stable surface for all vehicles. This spectacular collection of vehicles was known as Hobart's Funnies.

DEATH AT OMAHA BEACH

1944 Inside the landing craft, the US soldiers heading for Omaha Beach were so tightly packed that most could not see the coast in front of them, so they didn't know that the air bombardment that was supposed to ease their way had failed and that the German defences were intact. The clash between German and US forces turned the beach into a hell hole. Disembarking soldiers were hit with a hail of German bullets, and the wounded were drowned by the rising tide. The 'lucky ones' who made it to shore entered a dense minefield where each step could lead to instant death. By the end of D-Day, 3,000 men at Omaha were wounded or dead.



1944 // *The advance begins*



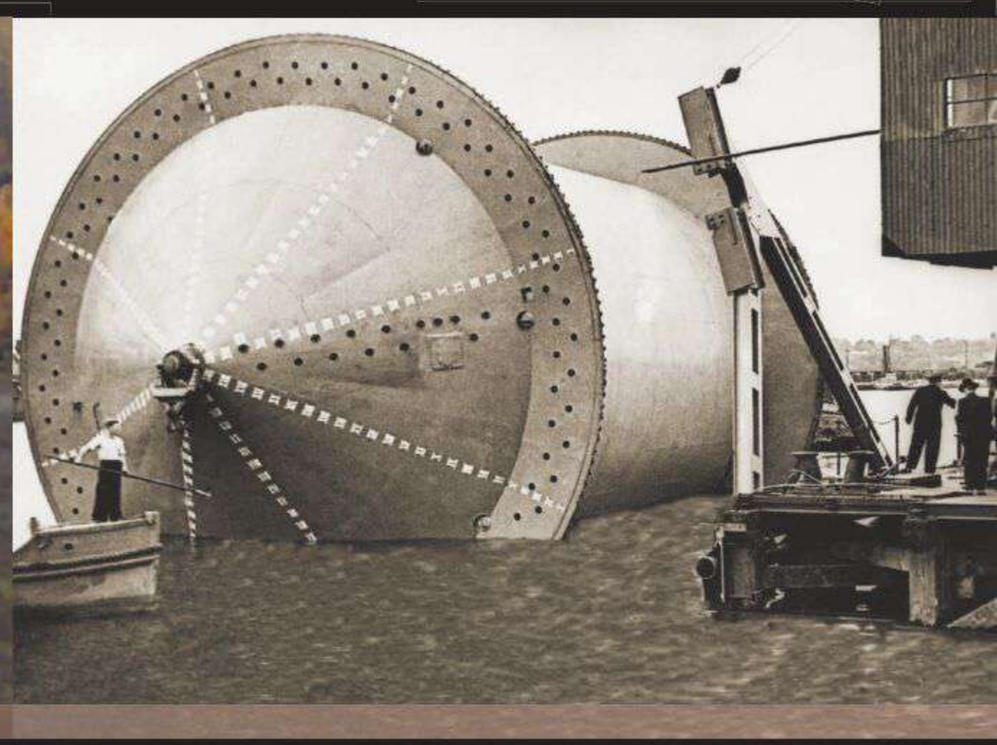
1944 // *Double agent fools Hitler*



1944 // *Fuel shortage*



1944 // *New attacks on the Eastern Front*



1944 // *Pipeline links Britain and France*

Advance

SOLDIERS MOVE FORWARD

1944 On 7th June, Allied troops began their advance into France. The bridgeheads needed to be expanded and strategic ports and cities captured. Although German reinforcements were held up by the sabotaged rail network and therefore had great difficulty reaching Normandy, the Allies still faced fierce opposition. In particular, the Germans who gave everything to defend Caen, meaning Canadian troops struggled for weeks before finally taking the city. But it wasn't just stubborn panzer divisions that hindered the advance. The region's distinctive sunken roads bordered by thick hedges provided shelter for snipers.

PORTS ENSURE SUPPLIES

1944 The Allies had landed on a coastline without using any ports, and while they had landing craft tanks that could carry and unload heavy materiel on to the beach, the invading army needed ports where they could land supplies. The solution was shipped across the English Channel in the wake of the invasion fleet: two huge mobile port facilities called Mulberries, which could be sited off the coast. These enabled the Allies to unload 25,000 tonnes of supplies and 6,000 vehicles every day. Even after Allied troops captured the French port of Cherbourg on 29th June, supplies continued to flow through the Mulberry harbours.



1944 // *Mobile ports established in Normandy*



1944 // *Hitler Youth sent to war*



1944 // *The Allies occupy Paris*

SUMMER OFFENSIVE IN THE EAST

1944 While the German *Wehrmacht* (armed forces) fought the Allies in France, the Soviet Union launched new attacks on the Eastern Front as part of Operation Bagration, forcing the Germans to fight two massive invasions simultaneously. On the 22nd June, German soldiers in Belarus woke up to the sound of explosions. The Red Army's Ilyushin IL-2 fighter aircraft were above them, sending down a rain of shells onto the German military bases. In the following weeks, Hitler's troops fled west, leaving a trail of dead, wounded and captured men behind them. The Germans lost 350,000 men during the operation.

ALLIES LIBERATE PARIS

1944 On the 25th August, French troops marched into Paris followed by US forces. Allied generals had been heading directly towards Berlin, but the French Resistance had rebelled against the capital's German occupiers in August, fighting the Nazi soldiers from improvised barricades in the streets. Operation Overlord's commander-in-chief, General Dwight D Eisenhower, was anxious to avoid a bloodbath in the heart of France and changed course to rescue the Resistance fighters. As soon as the troops arrived in Paris, the city was surrendered by the Germans and the Allies continued their advance. Berlin was waiting.



PRELUDE TO D-DAY

1942-1944

In January 1944, two soaked men clambered up the shoreline on the coast of France and stuck a drill in the ground to take a sample of the sand. They were spies investigating the beach where the Normandy landings were to take place. The bloodshed on the Eastern Front had led the Soviet leader, Joseph Stalin, to demand a new front in the west. As a result, in 1943, the plans for Operation Overlord began to take shape. As history's largest single military operation, D-Day required a huge planning effort. In the training camps, at the army's card tables and on reconnaissance missions, everyone worked hard before the battle could begin.

1942-1944

1942 The assault on Dieppe ends in failure for the Allies.

1943 Operation Overlord is agreed at the Tehran Conference.



1944 British submarines spy along the Normandy coast.

1944 Allied soldiers are trained for D-Day in Britain.

1942 1943 1944

The sound of thousands of shots broke the quiet, clear evening in the North African desert. Flashes from Allied weaponry lit up the night sky as bullet after bullet ripped into the enemy, who were taking refuge beyond a wide minefield. Led by British field marshal Bernard Montgomery, the Allied troops had initiated a strong assault against the German- and Italian-held trenches in front of the town of El Alamein in Egypt. The hail of bullets signalled the beginning of the end for General Erwin Rommel's victories in North Africa.

Before the Battle of El Alamein, the Axis armies controlled large parts of North Africa, but the battles that raged from 23rd October to 3rd November, 1942, put the brakes on German and Italian progress. Six months later, there were no Axis troops left in the region.

The pressure on the Axis forces grew elsewhere, too. US and British troops had landed in Morocco at the city of Oran in Algeria in the autumn of 1942. There they fought side by side with the Free French army, which consisted of French troops who had refused to submit to the ceasefire agreement signed by the French government with the Germans in 1940. Under the command of General Charles de Gaulle, the Free French army recruited troops from those French who had escaped to Britain and others in French colonies such as Chad, Congo and Cameroon. Further north, the Allies pushed back Mussolini's fascist regime by landing in Sicily and southern Italy on the 9th and 10th July, 1943. To the east, Hitler's exhausted soldiers suffered their first major defeat in the Soviet Union. The harsh winter froze the Germans' advance in 1942.

Western front relieved soviets

While the Axis powers wavered outside central Europe, Hitler's regime still held western and central Europe in a fixed, iron grip. France was still a Nazi bastion, and Britain was the last European country fighting to destroy the Third Reich. Despite their victories in North Africa, in 1943, the three great Allied leaders – British prime minister Winston Churchill, US president Franklin D Roosevelt and Soviet premier Joseph Stalin – had to admit that the fight against Hitler's war machine was proving to be a longer and more exhausting endeavour than anyone had foreseen.

After meeting in Tehran, Roosevelt, Stalin and Churchill did not meet up again until the Yalta Conference in 1945.

It was particularly gruelling for the Soviets whose population were under fire, as well as its soldiers. Without the assistance of the other powers, the Soviet troops on the Eastern Front seemed to be fighting a never-ending war. For a long time, Stalin had demanded that the Allies open a new European front to lure some of the German forces west, thereby relieving his forces. When the three leaders met at the Tehran Conference in the capital of Iran on 28th November, 1943, it was clear that his demands were about to be met.

Churchill, Roosevelt and Stalin used the meeting to debate how they could invade Nazi-held territory from the west and establish a bridgehead into Western Europe. If successful, the three leaders believed they should be able to win the war within a few months. If it was unsuccessful, the hard-pressed Europeans would have to face the prospect of another year of brutal war. A failed invasion would undermine belief that victory was possible, both in military camps and on the home fronts. In other words, the invasion from the west was crucial for the whole of Europe and the future of much of the rest of the world, too.



Stalin, Roosevelt and Churchill planned D-Day at the Tehran Conference.

Operation Overlord took shape

At the Tehran Conference, a plan for the invasion – which had been named Operation Overlord – began to take shape. In the spring of 1944, an Allied army would set out from Britain to attack the coast of German-occupied France. Roosevelt and Stalin happily agreed to the plan, but the British were troubled by the idea of opening a direct front between Great Britain and the German forces in France. Hoping that the passage of time would work in the

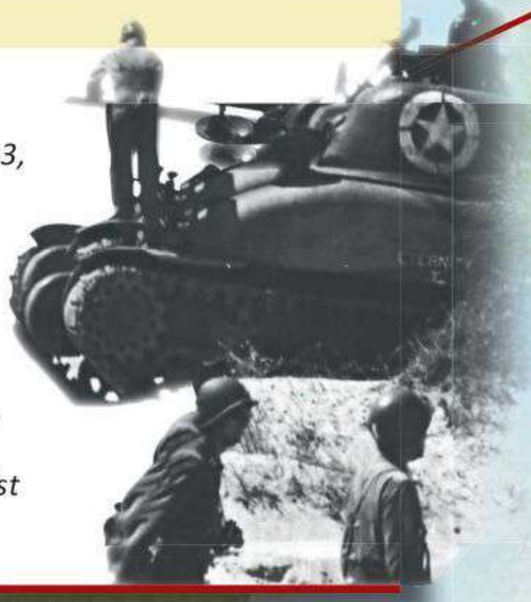
GERMANY



In 1943, Allied bombs rained down on key German cities. On 24th July, 9,000 bombs fell on Hamburg. At the end of the year, the Royal Air Force dropped 14,000 bombs on Berlin, leaving the German capital in ruins. Hitler's power in Europe remained firm, however.

North America

ITALY



The Allies invaded Italy on 9th-10th July, 1943, as part of Operation Husky. The forces landed in Sicily, then moved north through the mainland. On the 25th July, they deposed the fascist dictator Benito Mussolini.

South America

0 3,000 km

ALLIED PRESSURE

Outside Europe, the Axis forces were buckling under Allied pressure, but after four years of war, the Germans remained firmly in power in landings would change that...



EASTERN FRONT

In August 1942, the Soviet Union launched a counterattack against German forces occupying southern Stalingrad. The Germans surrendered to the Red Army on 1st February, 1943. At least 1.5 million soldiers and 40,000 civilians lost their lives in the battle.

PACIFIC

In June 1942, Japanese and US naval forces clashed in the Battle of Midway, which became a turning point in the Pacific War. After four days of fighting, the US emerged victorious, having inflicted heavy losses on the Japanese Imperial Navy.

NORTH AFRICA

Since 1940, the fighting between the Allies and the Axis had flowed back and forth across North Africa's deserts. After the Allied victory at the Battle of El Alamein in 1943, the Germans lost their grip on the region.

Italian and Romanian troops fought alongside German soldiers as they were pushed back on the Eastern Front.

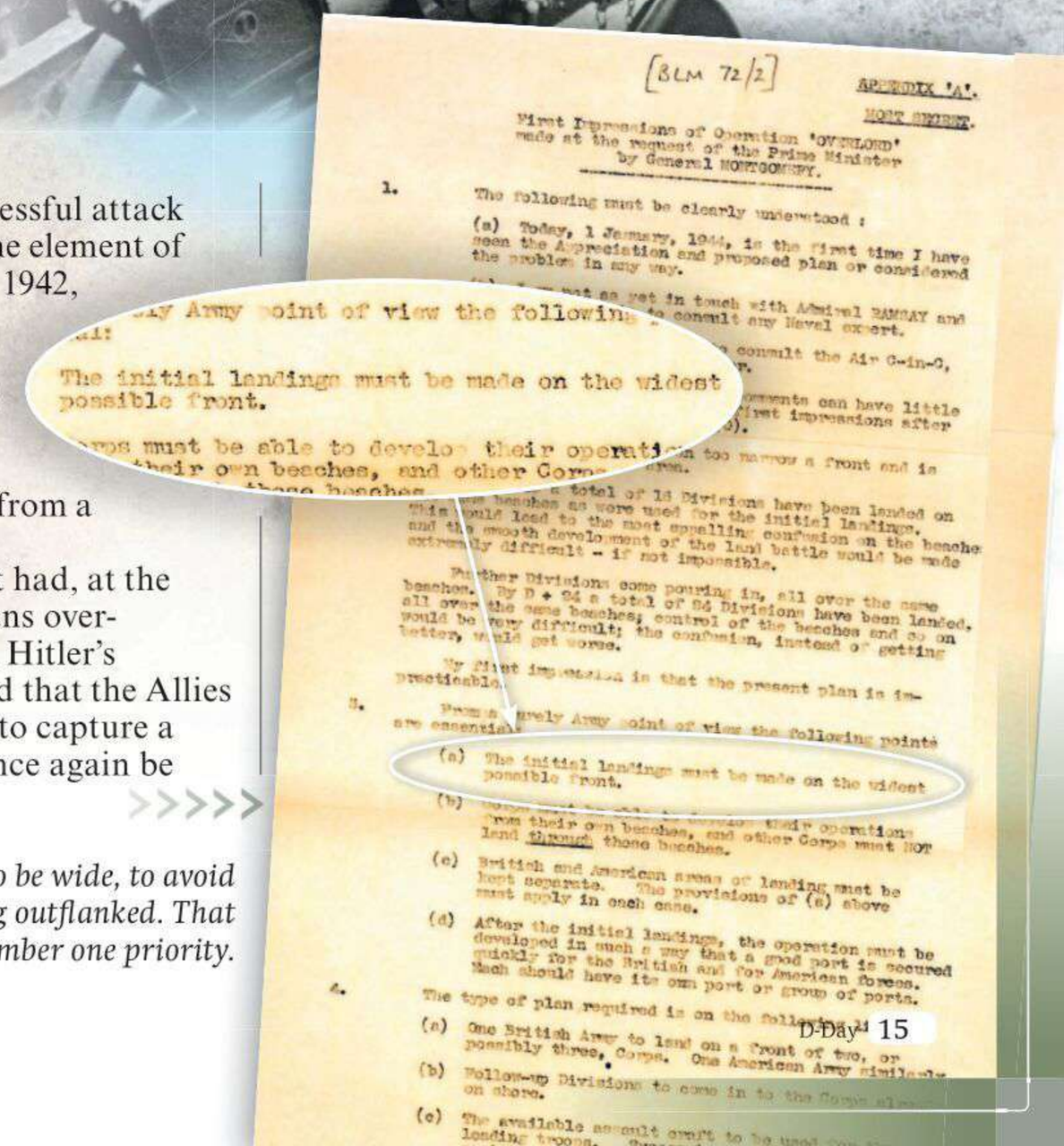
Allies' favour, and that the German army would be eroded by fatigue, Churchill attempted to postpone the decision for as long as possible. The British soldiers were exhausted after years of fighting, and the British prime minister feared that they would end up as corpses on the battlefield.

His fears were partly based on the failure of the British-led mission to capture the French port city of Dieppe in August 1942, which had ended in a crushing defeat for the Allies with 3,623 of the 6,086 landlocked British and Canadian soldiers being either killed or taken prisoner.

On the other hand, the Dieppe debacle gave the Allies a unique insight into the pitfalls of an assault from the Atlantic. One important lesson was that the soldiers should not attack a defined, strategic point – which, like Dieppe would be well guarded by German forces – but rather a wide stretch of coast. The unsuccessful attack had also taught them that the element of surprise was paramount. In 1942, the troops had sailed into Dieppe in full daylight and were, therefore, easy targets for the German soldiers manning the sea defences, who had seen them coming from a great distance.

The failed Dieppe assault had, at the same time, made the Germans over-confident in their strategies. Hitler's commanders were convinced that the Allies would renew their attempts to capture a port, and that they would once again be >>>>>

The D-Day front needed to be wide, to avoid the invading troops being outflanked. That was Montgomery's number one priority.


[BLM 72/2]

APPENDIX 'A'.

MOST SECRET.

First Impressions of Operation 'OVERLORD' made at the request of the Prime Minister by General MONTGOMERY.

1.

The following must be clearly understood :

(a) Today, 1 January, 1944, is the first time I have seen the Appreciation and proposed plan or considered the problem in any way.

The initial landings must be made on the widest possible front.

(a) The initial landings must be made on the widest possible front.

(c) British and American areas of landing must be kept separate. The provisions of (a) above must apply in each case.

(d) After the initial landings, the operation must be developed in such a way that a good port is secured quickly for the British and for American forces. Each should have its own port or group of ports.

MEANWHILE IN BURMA



BRITISH FORCES FIGHT THE JAPANESE ARMY IN BURMA

Burma (now Myanmar) had been a British colony since 1886, but in 1942, it was occupied by Japan. This prevented the overland supply of British arms to China and forced the British to use air transport instead.

In 1944, after two years of struggle, British forces succeeded in pushing the Japanese back within Burma, but the last troops didn't leave the country until August 1945.

On the shores of Britain, hundreds of thousands of Allied soldiers trained on the landing craft that would transport them to Normandy.

able to thwart their assault. Consequently, the German generals reinforced the Atlantic ports, leaving the coastline between the cities ever-more vulnerable to attack. It was a weakness that the Allies could exploit.

EISENHOWER IN CHARGE

On both sides of the Atlantic, preparations for the largest single operation in military history were now underway. Operation Overlord required more coordination skills than any previous assault.

The experienced American general Dwight D Eisenhower was appointed supreme commander of the invasion, and his second-in-command was British air chief marshal Sir Arthur Tedder. General Montgomery, the hero of the battle of El Alamein, led the ground forces. British admiral Bertram Home Ramsay and Air Marshal Trafford Leigh-Mallory were in charge of the naval and air forces. The commander behind the strategic planning of the invasion was Lieutenant-General Frederick E Morgan who became Eisenhower's chief-of-staff.



Troops were given creams to protect them from the effects of poisonous gas.

The military and logistical challenges of the operation soon became obvious to the newly appointed commanders. Within a short amount of time, they had to build an army of more than two million men and train them for the mission. In addition, they had to secure the right quantities of weapons, ammunition, medicine, vehicles and other vital supplies. They also had to figure out how to transport 194,000 men and their equipment to France within a just a few days. In the US, the arms factories increased production and cargo ships prepared to ship machine guns, artillery, ammunition, tanks and other military vehicles across the Atlantic.

This was a new option in the war: vessels could now cross the ocean without the constant threat of being sunk. German U-boats had reigned in the Atlantic since the start of the war, firing their deadly torpedoes at one convoy after another. But at the start of 1943, the Allies secured the Atlantic shipping lanes, enabling the thousands of US and Canadian soldiers needed for Operation Overlord to be transported to Europe in safety.

EXERCISES ENDED IN BLOODBATH

Training began as soon as the soldiers landed in Britain. Operation Overlord was planned as an amphibious assault: an attack on both land and sea. This type of attack was one of the most difficult to coordinate and demanded that each soldier accurately knew his role in the fight. The landings and air support needed to be timed to perfection.

The British government decided to use Slapton Sands in Devon as a training base. 3,000 local residents were moved from their homes to make room for the soldiers; some of them had never before been outside their village. The peaceful village idyll was soon transformed into a mock combat zone where soldiers took part in firing drills and strength training, and practiced the manoeuvres that would be needed on the beaches of France.

The training turned deadly one day in early spring 1944. Soldiers taking part in a large-scale exercise at sea, Operation Tiger, were spotted by nine German E-boats on patrol off the British coast. Suddenly and quite unexpectedly, the motorboats attacked, killing 946 Allied soldiers.

Tragically, many didn't know how to put on their life jackets and wore them incorrectly around their waists, because their large backpacks meant they couldn't fit them over their torso. When these men jumped into the water, the weight of their combat packs flipped them upside down,

D-DAY MASTERMINDS

As the largest single military operation in world history, Operation Overlord required all levels of expertise. Experienced generals and cunning strategists drew up the invasion plan and commanded the forces in the field.



BERNARD MONTGOMERY

Commander of the ground forces

■ The British field marshal led the Allies to victory in North Africa and was appointed to lead the ground forces on D-Day. He was known for his fickleness and had many enemies in his ranks.



BERTRAM HOME RAMSAY

Spearheaded the naval forces

■ Admiral Ramsay had actually retired when World War II broke out, but was recalled to lead the naval forces during the Normandy landings. Ramsay was an experienced admiral who had been in command of some of WWI's most important naval battles. His life was cut short on 2nd January, 1945, when he boarded a plane from the town of Toussus-le-Noble. The plane crashed on take-off.



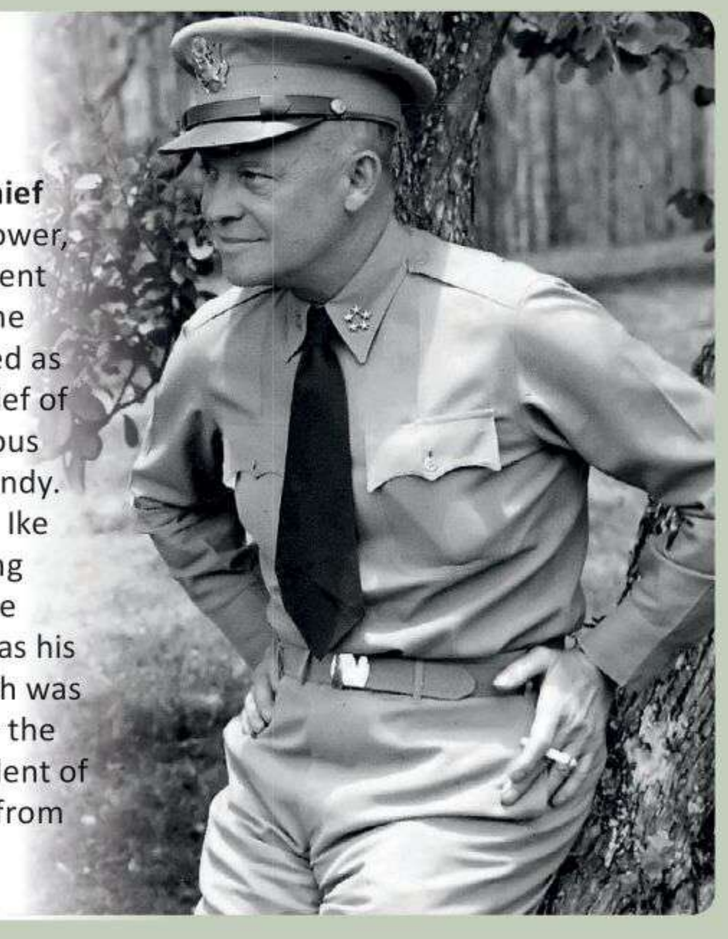
TRAFFORD LEIGH-MALLORY

Head of the air forces

■ The Allies chose Air Marshal Trafford Leigh-Mallory to command the invasion's air forces. Prior to D-Day, his bombers destroyed the infrastructure in Normandy. The missions also led to French deaths, but were effective in stopping German reinforcements from arriving.

> “Tragically, many didn’t know how to put on their life jackets and wore them incorrectly”





DWIGHT D EISENHOWER

Commander-in-chief

■ General Eisenhower, who most often went under the nickname ‘Ike’, was appointed as commander-in-chief of the huge amphibious invasion of Normandy. Despite his status, Ike was known as being sociable and on the same wavelength as his subordinates which was appreciated. After the war, he was president of the United States from 1953 to 1961.



ARTHUR TEDDER

Deputy Commander

■ As a pilot, Arthur Tedder had risen through the ranks quickly during WWI. As an air marshal in World War II, he rose to the top, reporting to Eisenhower as his second-in-command at the Allied headquarters.



FREDERICK E MORGAN

Strategist

■ As the lead strategist, Lieutenant-General Morgan put together all the details of the invasion to make Operation Overlord a success. Although some aspects of his original plans were tweaked, he was behind most of the decisive choices – for example, the choice of target for the landings.

“Every detail… could mean life or death for thousands of men”

dragging their heads under the water and drowning them.

A soldier aboard the naval ship LST-507, later commented on the incident.

“The worst memory I have is setting off in the lifeboat away from the sinking ship and watching bodies float by.”

The Allied commanders were both upset and ashamed of the blunder. In order not to arouse resentment in the local population and to prevent German spies learning of their activities, the commanders cancelled the remaining exercises and suppressed any news of the deaths.

6,500 vessels were needed to ship soldiers and equipment to France for the landings.

Normandy was target

A crucial question ahead of the attack was where the invading troops were supposed to land. The shortest distance across the English Channel ran from the English city of Dover to the French city of Calais. But because Calais was the most likely place for an invasion, it stood to reason that it would also be heavily guarded by German forces. The port city was therefore quickly struck from the list of potential targets. The south coast of Brittany was also an option laid down on the strategy table, but unlike Calais, its beaches were much further from the embarkation sites in England. And a longer voyage increased the likelihood that German scouts would discover the fleet before it reached its goal, allowing them time to set up a defence.

Once those options had been dismissed, the only remaining choice was to land on the beaches around the town of Caen in Normandy. The coastline there was less well guarded and presented an open landing site for the invading troops. At the same time, the beaches offered relatively easy access to the hinterland and the coast’s expanse meant that the Allies could attack several places simultaneously. Another boon was that the site lay far from Germany’s military bases in France. By bombing roads, bridges and railways ahead of the invasion, the Allies could prevent German reinforcements from arriving in time to counterattack. Normandy was also within range of British fighter planes, which could be sent to attack German troops.

The many benefits of landing in Normandy didn’t mean that the Allied army commanders were expecting an easy time once they reached the other side of the Channel. For one thing, the coast where the battle would take place lacked a port where they could land weapons, food and medicine. The solution was to bring two temporary floating docks to the coast. After that, troops would move to capture the harbour at Cherbourg.

The invasion plan initially called for Allied landings at three points along the coast, but when Eisenhower and Montgomery saw Morgan’s blueprint, they recalled the massacre at Dieppe and insisted that five sites be used. The chosen beaches were given code names: Omaha, Gold, Utah, Sword and Juno.

Attack at ebb tide

The planning continued day and night. Every detail in an assault of this size could mean life or death for thousands of people. For example, it was crucial to plan at what time the soldiers would reach the coast. Weather conditions, moon phases and tide height could also make or break the outcome of the operation.

The generals spent a long time debating whether an ebb or flood tide would be most favourable for the landings. The advantage of a low tide was that the invading forces would be able to see the deadly mines the Germans had planted across the beach, which were concealed by the high water. The disadvantage, on the other hand, was that the soldiers would have to wade through heavy, wet sands before reaching the dry sand in front of the German fortifications. It was a longer distance, and they would be under fire the whole way.

Rommel was convinced that the Allies would attack at high tide – so convinced that he ordered all German guns set for targets arriving at the peak of a flood tide. The invasion was set for dawn, so the troops’ approach would be in darkness.

The strategists also decided that D-Day would take place after 15th May, when the days were long and the nights were bright



General Dwight D Eisenhower briefed his soldiers shortly before departure.



Private holiday photos taken in France helped the Allies map the coast.

The army chiefs chose the wide expanses of Normandy's north coast as the location for the D-Day landings because it meant that the Allies could have a wide front that couldn't easily be outflanked by the Germans.

enough during a full moon to easily navigate. The first day after 15th May, which offered both a full moon and an ebb tide at dawn was 5th June. Therefore, that was the day the decisive battle for Europe was set to take place. However, the invading forces had to beware of fog, storms, and heavy rain and seas, any of which could doom the entire assault. If the weather looked like blowing their plan off course, the invasion would have to be postponed.

BBC COLLECTED HOLIDAY PHOTOS

The army had long been at work gathering all relevant information about Normandy's north coast. Mapping the beaches, hinterland, road network and German defences along the coast was crucial for a successful invasion.

By 19th May, 1942, the BBC was called into action. Radio hosts asked listeners to send in holiday photos taken in France for an exhibition the BBC was putting together about the Atlantic coast before the German occupation. Between seven and nine million Brits sent in their holiday snaps to the BBC, which were then quickly sorted by army representatives. The analysts earmarked 500,000 potentially useful photos, which were then studied for important geographical details that could affect the planned operation.

Holiday photos of ice-cream parlours, idyllic cottages and the tourist destination of Mont-Saint-Michel, however, were not enough to create an overall picture of the coast in war time. A fleet of submarines was, therefore, dispatched to spy on the coast from the waters off Normandy.

On 17th January, 1944, the British submarine *HMS X20* sailed into the English Channel on a four-day mission codenamed Operation Postage Able. During the day, the submarine lay hidden under the water's surface while its crew used the periscope to survey the coast and echo-sounding to measure water depth. When the night fell, two of the crew slipped into the cold, black seawater and swam to the beach. Each carried a notebook, pencil, compass, 45-calibre revolver, ground drill and some condoms. The two spies then drilled into the beach, filling the condoms with samples of sand. Back at HQ, the sand would be analysed to see how the beaches' composition might affect the operation – for example, to see how much weight the beaches could bear to carry.

Back in Britain, the submarine crew's data was used to improve the Allies' situational awareness, including enabling them to chart the positions of rocks around the invasion beaches and the speed of the tide as it went in and out across the sand.

As well as gathering data, the Allied military commanders also worked on plans to mislead the Germans about where and when an assault would come.

By June 1944, with an army of well-trained soldiers, a carefully organised arsenal of equipment, intelligence from the French coast and a hoodwinked German military, the Allies, after years of preparation, were finally ready to land on the Normandy beaches. ■



The assault on the French port of Dieppe in August 1942 ended in bloody failure for the Allies. The generals used the hard-learned lessons when planning the D-Day invasion.

THE ATLANTIC WALL

1940-1944

A little west of Calais lay three gigantic guns pointing out into the English Channel. Their 600-kg shells could reach as far as the English coast – and sink any approaching Allied vessel. The Batterie Lindemann guns were part of Hitler's Atlantic Wall project, realising his dream of an almost 3,800-kilometre-long, unbroken chain of artillery, bunkers, trenches, mines and tank barriers along the occupied Western European coasts.



1940-1944

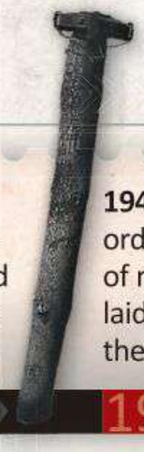
1940 The first coastal fortifications are built in occupied Europe – on the English Channel and in the Channel Islands.

1941 Adolf Hitler orders the Atlantic Wall to be built.



1942 Organisation Todt starts Construction work.

1943 Erwin Rommel takes over command of the Atlantic Wall.



1944 Rommel orders millions of mines to be laid out along the coast.

1940 1941 1942 1943 1944



The voluntary Free India Legion guarded the Atlantic Wall, motivated by its desire to fight against the British colonial power in India.

On 19th January, 1944, *Generalfeldmarschall* (General Field Marshal) Erwin Rommel returned from inspecting the French Atlantic coast. Since taking command of Hitler's large-scale Atlantic Wall project in November 1943, the experienced commander had tirelessly travelled from bunker to bunker. Rommel's aim was to motivate soldiers and engineers to continue the construction work while getting an overview of the gigantic fortifications that ran all the way from northern Norway to the Spanish border. The aim of the Atlantic Wall was to protect German-occupied Europe against an Allied invasion.

Rommel's many travels had already borne fruit. His initial inspections had shaken the 52-year-old generalfeldmarschall, because construction work had been delayed and there were holes in the defences. Now, however, the Atlantic Wall had expanded with thousands of new bunkers, guns, mines and tank barriers.

When Rommel returned from his inspection, he sat at a beautifully curved desk in the old chateau at Fontainebleau where he was staying, and wrote this to his wife, Lucia:

"Returned today from my long trip. I saw a lot and was very satisfied with the progress that has been made. I think for certain that we'll win the defensive battle in the West, provided only that a little more time remains for preparation."

The famous Rommel, notorious among the Allies for the unique tactical acumen he demonstrated in North Africa, had carefully analysed the Western European defences. Like the rest of the Nazi leadership he was convinced that the Allies would soon attempt a landing of troops somewhere on the Atlantic coast and then try to make their way to Berlin. Since the end of 1943, the Third Reich had been in defensive mode in the east, south and west. While soldiers in the east and south continued to fight, the strategy on the Western Front was to hold the enemy back with impregnable defences. Rommel, known as the "Desert Fox" for his efforts in North Africa, had been tasked with implementing this strategy.

Mortar bunkers spread along the coast were each equipped with nearly 4,000 shells.

The main focus of his energy was in Normandy and along the coast of Calais, just 40 kilometres from the English coast. Rommel and the rest of the Nazi elite were convinced the invasion would be in this area, and the generalfeldmarschall had promised Hitler he would turn the North of France into an "iron coast".

Mines should cover salt marshes

Fortunately for Rommel, the Allied invasion was delayed, allowing the Atlantic Wall to grow in strength. During February, March and April 1944, Rommel reinforced the coastal defences based on his overall strategy: that any battle must be settled while the Allied invasion force remained in the sea off the coast – or struggling to come ashore via the beaches of Northern France. Tens of thousands of metal and wooden barriers were manufactured and positioned – some with explosives – to destroy landing vessels and tanks prior to landing. He also acted on his enthusiasm for sea and land mines, although the production of the former couldn't keep up with Rommel's requirements. Between five and six million landmines were buried on the Atlantic coast beaches and coastal areas. On a beautiful, early spring day, during one of Rommel's many inspections, his chief-of-staff remarked on the beauty of a meadow in bloom. Rommel cast a brief glance before responding brusquely:

"You might take a note, Gause – that area will take about one thousand mines."

In addition to laying mines, Rommel reinforced as many defensive positions as possible with metre-thick concrete walls and roofs. He remembered his bitter experience of the RAF during the Desert War and was convinced the troops had to be protected thoroughly if they were to survive the massive bombardment that would surely precede an Allied landing.

Three months after writing to his wife, Rommel remained optimistic. He wrote in a letter to Colonel-General Jodl:

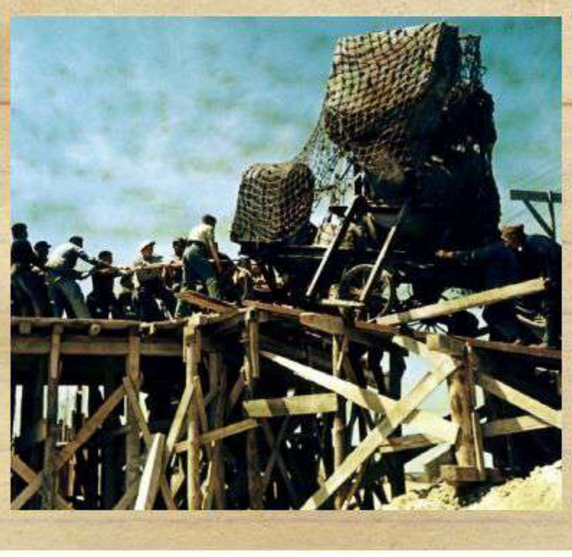
"If, in spite of the enemy's air superiority, we succeed in getting a large part of our mobile force into action in the threatened coast defence sectors in the first few hours, I am convinced that the enemy attack on the coast will collapse completely on its first day."

Atlantic Wall was Hitler's dream

Prior to Rommel's energetic work in the spring of 1944, construction of the Atlantic Wall had faltered. Work had originally begun shortly after Hitler's armies drove the last Allied troops from mainland Europe in 1940. At first, construction was primarily intended as part of the Third Reich's future offensive strategy. Massive gun batteries were installed on the coasts around Calais to provide supporting fire during Operation Sealion, the planned invasion of the British Isles, which Hitler cancelled at the last minute. Afterwards the guns were used to bombard the English Channel and the closest towns in the south-east of England, including Dover.

Hitler had already invested a lot of energy in defending the Channel Islands – which had fallen along with France – against any British reoccupation attempts. In 1941, Hitler's strategic focus shifted to defending his gains, including the rest of the Atlantic coast. This shift was due in

TECHNOLOGY CULTURE ECONOMY EVERYDAY



Forced labour built bunkers

By the end of 1943, 500,000 forced labourers were working up to 12 hours a day on the Atlantic Wall. Most were Soviet prisoners of war.
Bob Le Sueur from Jersey in the Channel Islands saw the first workers arrive on his German-occupied island: "Shuffling men, filthy, ashen grey, confused and de-humanised. Their Organisation Todt guards prodded them and shouted at these exhausted men as if they had been a herd of recalcitrant animals".



"Desert Fox" Erwin Rommel (left) meticulously reviewed the fortifications along the Atlantic coast before ordering thousands of improvements.



German soldiers could scout the open sea from the many fortresses on the Atlantic Wall in the hope the invasion would not come their way.



Occasionally there was time for other pursuits, as these two young men demonstrated in 1943.

part to several effective British operations involving special forces behind German lines in Norway and France.

On 14th December, 1941, Hitler issued a directive ordering the establishment of a "new Westwall". The wall's purpose and design were more precisely defined in Hitler's Directive No 40 in March 1942, and in May the first serious planning meeting was held. The focus would be on defending the largest ports followed by the coasts between them. The construction would primarily be carried out by the so-called Organisation Todt. The civil and military engineering organisation had originally been set up by Fritz Todt to build highways, factories, and military facilities for the Nazi regime, but since Todt's death, the development was led by Hitler's armaments minister, Albert Speer.

Serious work continued on the fortifications through the mid-1943, but its pace slowed dramatically when the fierce fighting on the Eastern Front severely depleted German resources. Gradually, Hitler realised that further reinforcements were needed in the west, and Rommel was put in charge of the Atlantic Wall. When he started, only half of the planned work had been completed.



Some of the tank barriers that the Germans scattered across Western Europe's beaches are still standing.

Recruits were weak

One reason why Nazi leaders wanted to invest massively in the fortification was purely pragmatic: most of the 300,000 soldiers along the Atlantic Wall were far from the desired standard. Those that manned the bunkers consisted of very young or old Germans supplemented by troops from very unstable alliances with the likes of countries like Hungary, Yugoslavia, Romania and Bulgaria.

5 percent of Germany's total steel production went to build the Atlantic Wall.

The construction itself was subject to stringent plans. With German thoroughness, senior engineers had determined everything from the thickness of steel doors (40 millimetres) to how deep the telephone cables should be dug (two metres). There were many different bunker types – for communication stations, crew accommodation, ammunition storage, and so on – each built according to standard dimensions. The widespread H621 personnel bunker and the H630 M bunker were visible along the entire Atlantic coast

However, there was also room for creativity amid the standardisation. For example, to trick the Allies' increasingly effective air force, engineers built dummy gun batteries while camouflaging the actual guns became a work of art. Some were covered with classic camouflage nets, others had roof tiles secured on top and were painted so they looked like ordinary houses. Observation towers were even disguised as churches and water towers.

Nazis fought for defence plan

As building work progressed, the Nazi propaganda machine boasted loudly of the new "Fortress Europe" – but not all those involved were convinced.

"The Atlantic Wall is no wall!" General Hans von Salmuth, commander of the 15th Army in France, wrote in a letter to a friend a while later:

"Rather it is like a thin and fragile cord, which has a few small knots at isolated places such as Dieppe and Dunkirk."

His implication was clear: there were strong fortifications along the Atlantic Wall, but it was weak.

In addition, the Germans were in disagreement from as early as 1942 all the way to D-Day itself as how the fortifications should be used. *Oberbefehlshaber West* (OB West) Gerd von Rundstedt, in command of the western defences, argued – along with most of central command in Berlin – for a deep defence, with the Atlantic Wall just the first obstacle leading to additional defensive forces and structures further inland. Essentially, Rundstedt and his supporters believed that the Germany's powerful panzer divisions should wait inland rather than stand ready near the invasion beaches.

Rommel argued that the Atlantic Wall should be the *"Hauptkampflinie"* (front line), the most important component in the defensive plan. He wrote to Berlin: "The war will be won or lost on the beaches. We'll have only one chance to stop the enemy, and that's while he's in the water… struggling to get ashore… The first 24 hours of the invasion will be decisive… for the Allies, as well as Germany, it will be the longest day."

Rommel wanted the tank divisions in place all the way to the beaches, but it didn't happen, even though he continually pressured Hitler right up until the days before the invasion.

Apparently, the Führer trusted in his Atlantic Wall:

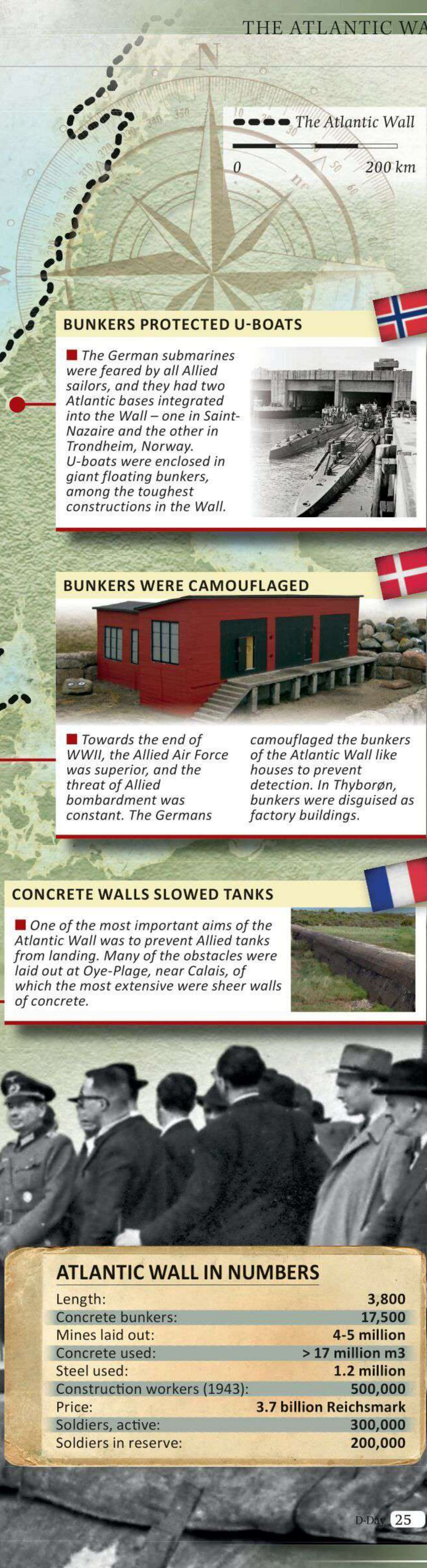
"I am the greatest fortress builder of all time," Adolf Hitler boasted when he heard reports of construction progress in 1944.

Perhaps Hitler had been taken in by his own propaganda ministry's claims the wall was impregnable – Hitler never saw for himself his magnificent defences.

A WALL OF BUNKERS SHOT UP



The Atlantic Wall was a huge project. From Norway's northernmost rocky coast to Spain in the south, Hitler wanted to fortify the coast with so many bunkers and guns that no enemy could penetrate it. The narrow opening in Skagerrak between Denmark and Norway was blocked with long-range guns on land and sea mines in the water.



MINI ISLANDS COVERED BY BUNKERS AND GUNS

■ *The Atlantic Wall defence was organised around Festung ports, around a core position where troops could survive for several weeks during a siege. One of the largest and heaviest armed ports lay on the 585-metre-long island of Forteiland at the entrance to Amsterdam where 26 large bunkers were quickly built.*



BUNKERS PROTECTED U-BOATS

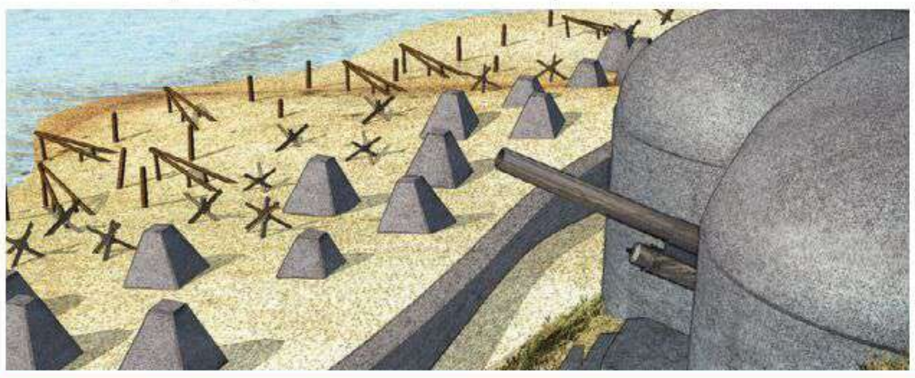
■ *The German submarines were feared by all Allied sailors, and they had two Atlantic bases integrated into the Wall – one in Saint-Nazaire and the other in Trondheim, Norway. U-boats were enclosed in giant floating bunkers, among the toughest constructions in the Wall.*

BUNKERS WERE CAMOUFLAGED

■ *Towards the end of WWII, the Allied Air Force was superior, and the threat of Allied bombardment was constant. The Germans camouflaged the bunkers of the Atlantic Wall like houses to prevent detection. In Thyborøn, bunkers were disguised as factory buildings.*

"THE IRON COAST" MUST BE IMPREGNABLE

■ *The Germans expected an Allied invasion near Calais and so heavily fortified its beaches. Wooden constructions equipped with explosives such as "Nutcracker" mines and "Rommel asparagus" would blow holes in landing vessels at high tide. If Allied tanks landed ashore, "Czech hedgehogs", "dragon's teeth" and concrete walls would hamper them while German soldiers fired on them from their bunkers.*

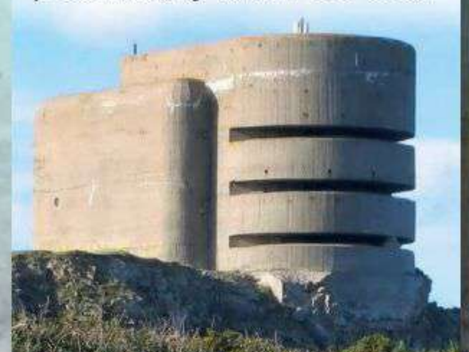


CONCRETE WALLS SLOWED TANKS

■ *One of the most important aims of the Atlantic Wall was to prevent Allied tanks from landing. Many of the obstacles were laid out at Oye-Plage, near Calais, of which the most extensive were sheer walls of concrete.*

WORKERS DIED

■ *After the conquest of France in 1940, German troops occupied the Channel Islands, including the island of Alderney. Almost all the inhabitants were evacuated before the invasion, and the Germans fortified the island with huge bunkers. The workforce comprised 6,000 concentration camp prisoners, of whom 700 died.*



Journalists were given an extensive tour of the 'impregnable' Atlantic Wall.

ATLANTIC WALL IN NUMBERS

Length:	3,800
Concrete bunkers:	17,500
Mines laid out:	4-5 million
Concrete used:	> 17 million m3
Steel used:	1.2 million
Construction workers (1943):	500,000
Price:	3.7 billion Reichsmark
Soldiers, active:	300,000
Soldiers in reserve:	200,000



GIANT GUNS FIRED FROM FRANCE TO ENGLAND

Batteries were placed along the Atlantic Wall with enormous so-called "Adolfkanone" (Adolf gun) with a calibre of 40.6 cm. The three naval guns at Batterie Lindemann in Calais, could reach all the way to the English coast.

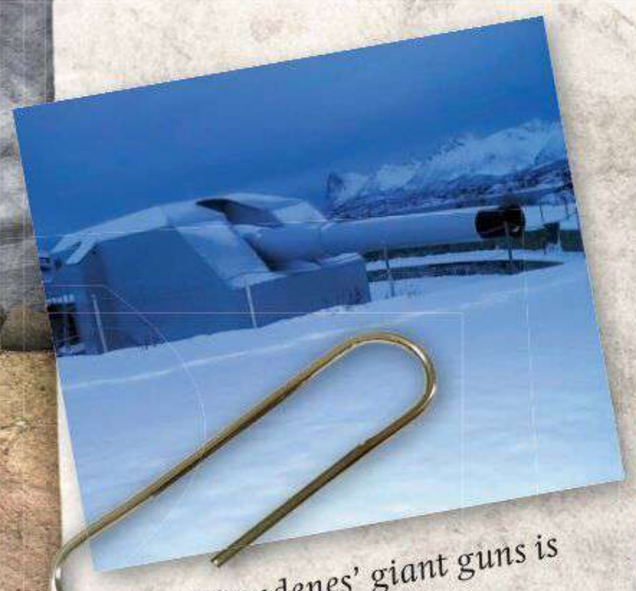
■ Originally, the heavy-duty SK C/34 guns were intended for a new type of giant H-class warships. But when the German Kriegsmarine had to abandon its dream of new steel titans, the Krupp engineers installed their giant guns along the Atlantic Wall instead – on the orders of Hitler himself. To the west of Calais, three of the guns were embedded in huge bunkers located about one kilometre from the coast. Around the guns, anti-aircraft weapons stood guard against British bombers, while a radar station and fire command post ensured that the heavy projectiles hit their targets. During their lifetime, Batterie Lindemann's guns fired nearly 2,500 grenades at ships and targets in southern Britain. After the Allied invasion of Normandy, the bunkers were destroyed by British and Canadian engineers, and all metal parts sold as scrap.





1. The gun barrel was 21 metres long and was dubbed the *Adolfkanone* (Adolf gun) by the engineers who developed it.
2. Hitler had personally demanded that the guns of Batterie Lindemann were encased in protective concrete. Therefore, they could only be turned 120 degrees, while identical guns in Poland and Norway could fire in any direction.
3. The gun smoke that filled the battlement's interior after firing was expelled via ventilation shafts.
4. The walls and ceiling were 3.6 metres thick, built to withstand a 500-kg bomb.
5. The gun was mounted in reinforced C/39 BSG *Bettungsschiessgerüst* (firing platform).
6. The bunker's ventilation shafts were equipped with heavy duty steel grids and, in many cases, hand grenade meshes to protect the crew.
7. The crew slept in the bunker and could survive in there during a siege. They had enough food, water and small-calibre ammunition for several days.
8. The bunker's basement hid 250 shells and 100 rounds of ammunition. The largest projectiles weighed over a tonne and could be fired up to 42.8 kilometres, while the 600-kg long-range 'Adolf-shells' could be fired at targets up to 56 km away.
9. The steel doors inside the bunker were airtight to protect from poison gas. All doors were from three centimetres thick.
10. The huge shells were transported on tracks by cart.

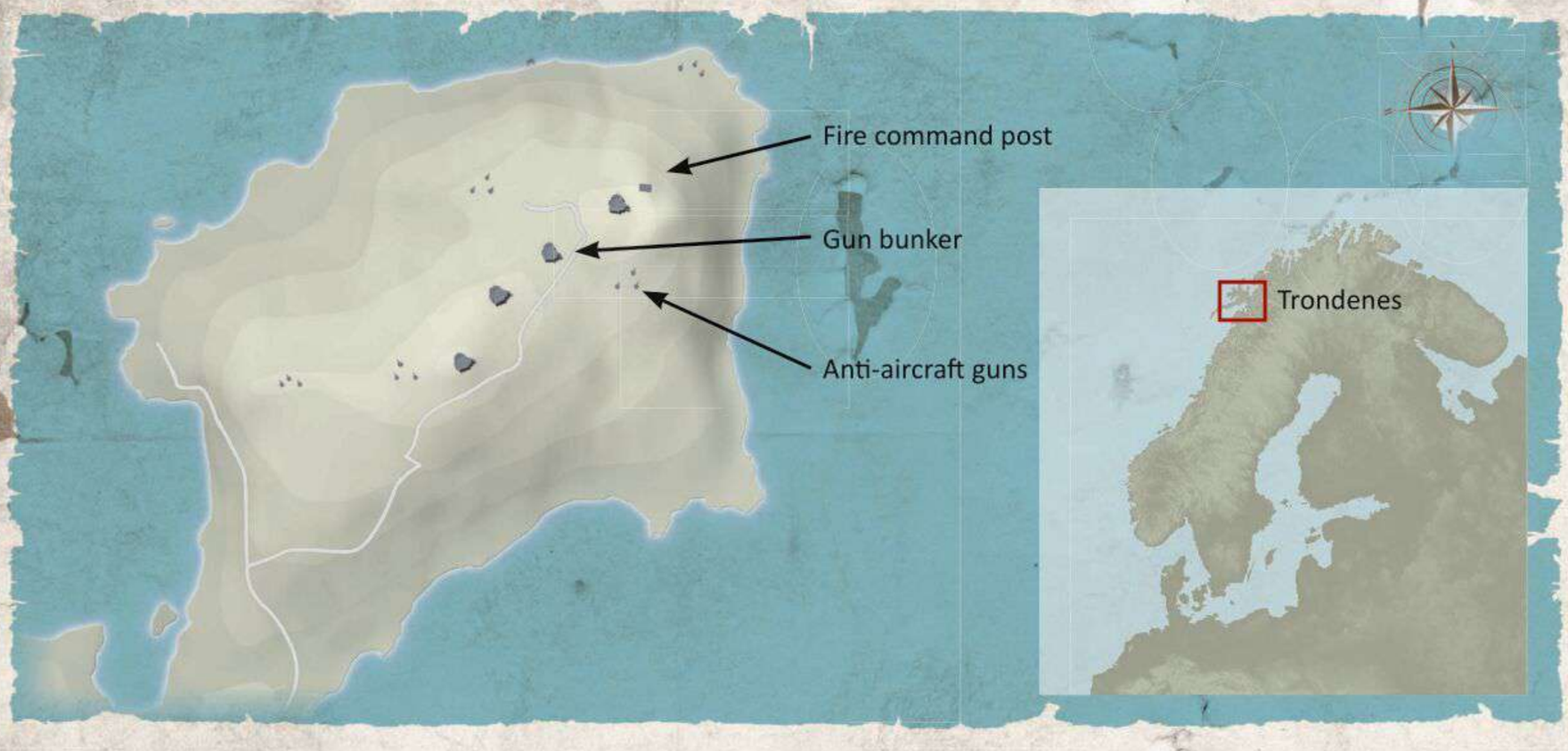




One of Trondenes' giant guns is now a museum.

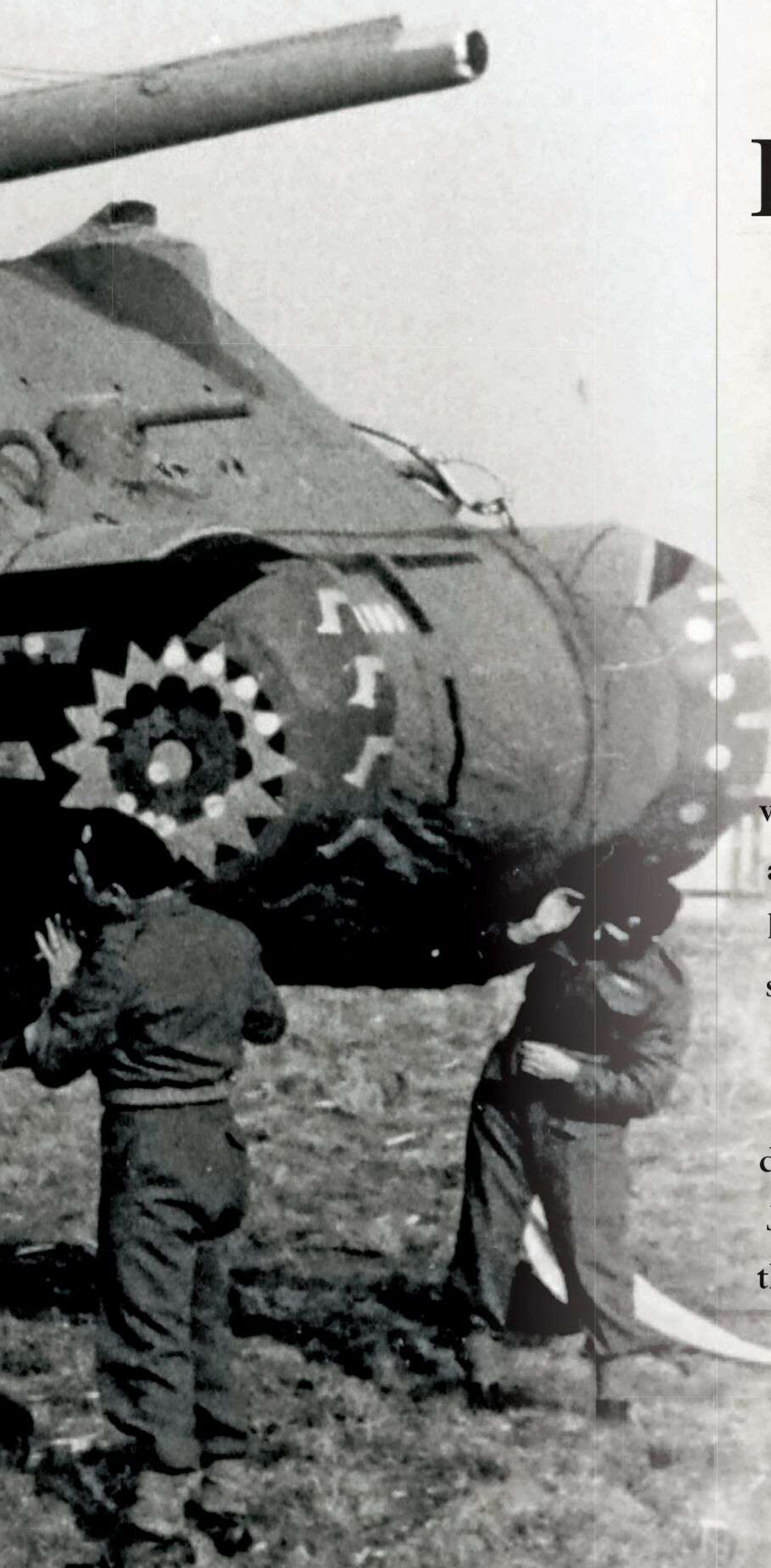
Norwegian guns protected iron ore and U-boats

■ Four of the gigantic Adolf guns were set up on the Trondenes Peninsula near Harstad in northern Norway. Along with a similar battery at Steigen further south, the guns' long range allowed the Germans to control the entire entrance to the strategically important Narvik, which served as a shipping port for exporting Swedish iron ore to the German armaments industry. Hitler was extremely keen to protect his *"Festung Norwegen"* (Norwegian fortress) – for the iron ore, but also because the deep Norwegian fjords were perfect hiding places for German warships and U-boats, making life difficult for Allied convoys shipping supplies from the US to Britain. After the war, the gun battery at Trondenes was taken over by Norwegian defence forces, which maintained just one of the four guns, which was fired for the final time in 1957.



The four Adolf guns on Trondenes were, like Batterie Lindemann, protected by anti-aircraft guns and directed from a fire command post.


760



THE GREAT DECEPTION

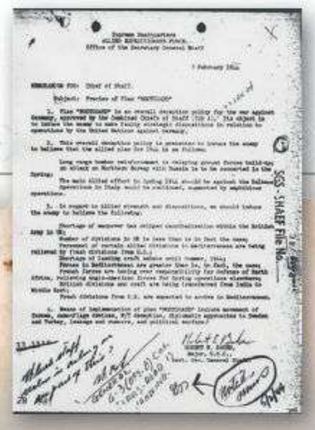
1941-1944

When German spy planes flew over southern England in the spring of 1944, the pilots witnessed a terrifying sight. Where before the landscape had lain deserted, the Allies were now building a vast army. Tanks and planes were ready to attack, while training camps buzzed with hundreds and thousands of men, but the scene was just a giant ruse to mislead the Nazis ahead of the Normandy landings. The deception also involved an army of double agents – among them, the cunning Juan Pujol García, who decided to reveal the invasion plans the night before D-Day.

1941-1944

1941 Juan Pujol becomes a German agent code named Alaric.

1942 The British hire Pujol as the double agent Garbo.

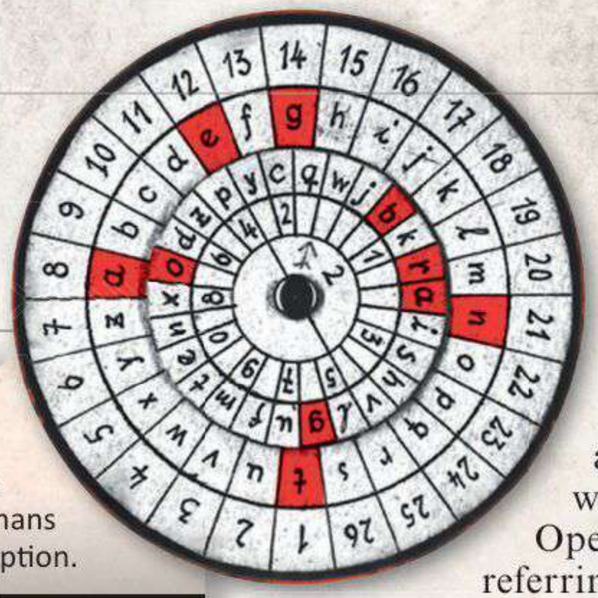


1943 Allies plan Operations Bodyguard and Fortitude.

1944 Fake tanks, aircraft carriers and planes are put in place.

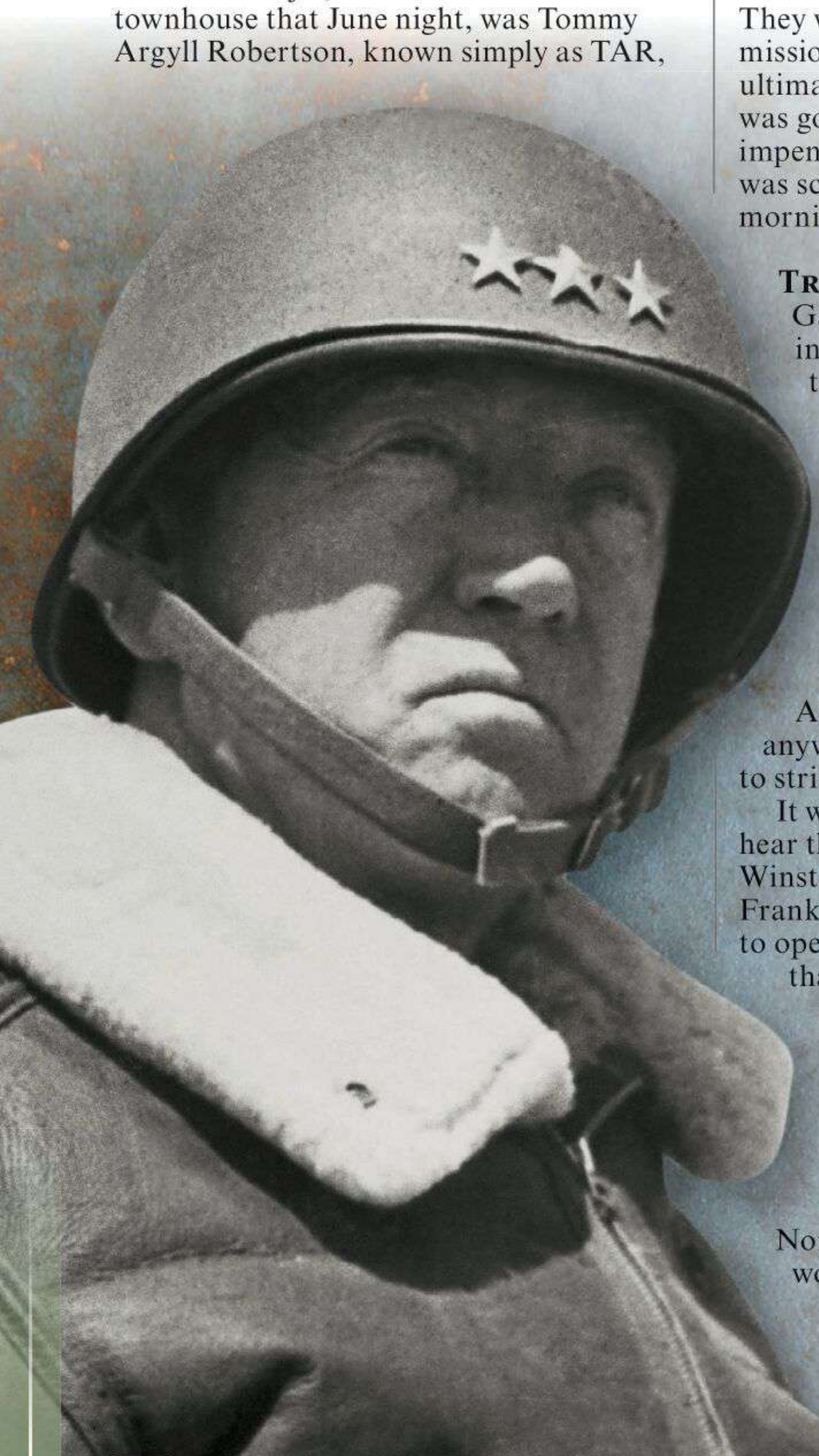
1944 Pujol sends false intelligence to the Germans using encryption.

1941 >>> 1942 >>> 1943 >>> 1944 >>>



Shortly before midnight on 5th June, 1944, a small group moved through London's darkened streets. They stopped in front of an unassuming house on Crespigny Road on the outskirts of the city. At the front stood a slender figure whose face was framed by a large pair of glasses. The man was Juan Pujol García, Britain's top double agent; he was codenamed Garbo – after the actress Greta Garbo – because of his ability to assume different roles. In his most important performance, Pujol played the part of a German secret agent codenamed Alaric, one of Hitler's most trusted informants.

Behind Pujol, as he entered the townhouse that June night, was Tommy Argyll Robertson, known simply as TAR, head of Britain's counter-espionage unit MI5. Behind TAR came Tomás 'Tommy' Harris, Pujol's MI5 handler, followed by Lieutenant-Colonel Roger Fleetwood-Hesketh. Bringing up the rear was Sergeant Charles Haines, a former bank clerk, now serving as Pujol's wireless operator. The five men were dressed in civilian clothing and had come from an exquisite dinner at Harris's home, where they had sampled a Château Ausone 1934 from his well-stocked wine cellar. Now that they were inside the house on Crespigny Road, the group began to feel a strange mixture of excitement and nervousness. They were about to carry out a mission that on the surface looked like the ultimate betrayal of their allies; the group was going to warn the Germans of the impending invasion of Normandy, which was scheduled for dawn the following morning, on 6th June, 1944.



Truth must be guarded by lies

Garbo and his colleagues didn't serve in uniform on the front line. Nor did they orchestrate the great battles that would push back German military power. Yet, with 32-year-old Juan Pujol at the forefront, they played a prominent role in the battle that would determine the future of Europe: D-Day. The men's work was, in fact, paramount to the great deception that would dupe the Germans into believing that the Allies would make their assault anywhere other than where they planned to strike: the north coast of Normandy.

It was impossible that Hitler wouldn't hear that the Allies' three principal leaders, Winston Churchill, Joseph Stalin and Franklin D Roosevelt, planned an invasion to open a new Western Front. He also knew that they were forming concrete plans throughout 1943 and 1944. What the Führer couldn't be sure about, though, was where and when the invasion would take place.

If the Allies could convince the Nazis that they were attempting to land somewhere other than Normandy's north coast, the Germans wouldn't reinforce that area, leaving it more vulnerable to attack. The element of surprise was one of the key elements of the D-Day plan. The Allies' large-scale attempt at deception was codenamed Operation Bodyguard, referring to Churchill's words at the Tehran Conference in 1943. "In wartime, truth is so precious that she should always be attended by a bodyguard of lies."

The operation, which featured false intelligence, double agents, fabricated armies, fake tanks and choreographed radio reports, was intended to concentrate Hitler's attention elsewhere.

As part of Operation Bodyguard, the Allies launched a number of specific sub-operations – including Operation Fortitude South and Operation Fortitude North.

General George S Patton commanded FUSAG, whose sole purpose was to mislead the Germans.

Eavesdropping on German radio communication revealed that the Nazis had been fooled by the Allies' hoax.

Ghost army in action

The mission of Operation Fortitude South was to create the illusion of a fearsome US Army Group, referred to as the First United States Army Group or simply FUSAG, who were stationed in south-east England under the command of the acclaimed US general George S Patton. From there, the army would invade France via the port of Calais. General Patton arrived in Britain to lead this army of phantom soldiers, which if real, would have boosted Allied numbers by at least 70 percent. Using subterfuge and chicanery, the FUSAG gave the impression that it was an army of a million soldiers.

The ghost army was established primarily by sending out fake radio messages, which were intercepted by German wireless operators who believed they were listening in to genuine enemy communications. FUSAG staged entire radio dramas, complete with the sound of humming trucks, hard-working soldiers and everyday life in the camp. To complete the illusion, FUSAG also issued reports detailing new recruits arriving from the US. The wireless operators appointed fictitious leaders, read touching letters from non-existent soldiers to wives and girlfriends back home and frequently reported important American football matches and baseball games.

But the Germans were not just conned via the airwaves. *Abwehr* (German military intelligence service) regularly sent reconnaissance planes to Britain to spy from the air. The pilots, looking down over south-east England during Operation Bodyguard were treated to a credible spectacle of a vast military encampment. On the trampled fields, camouflage-clad FUSAG soldiers set up one tent after another for thousands and thousands of non-existent troops.

Had the pilots been closer, they would also have heard the sound of orders flying >>>>

HITLER WAS DECEIVED



In the lead up to D-Day, the Allies misled the Germans with false invasion plans. The goal was to fool Hitler into moving his forces, leaving Normandy's north coast relatively unprotected.

WEST COAST OF NORWAY

■ *In northern England and Scotland, the troops of Operation Fortitude North created the illusion that a giant army was preparing to invade Norway. Fake radio communications about the army's new recruits helped to set the scene.*



CALAIS

■ *Radio communications from the FUSAG training camp came complete with suitable sound effects and reports of newly arrived troops. Fake landing craft, tanks and planes were deployed in southern England. Working under the codename Operation Fortitude South, the soldiers strengthened the Germans' suspicions about the likelihood of an assault being launched at Calais.*



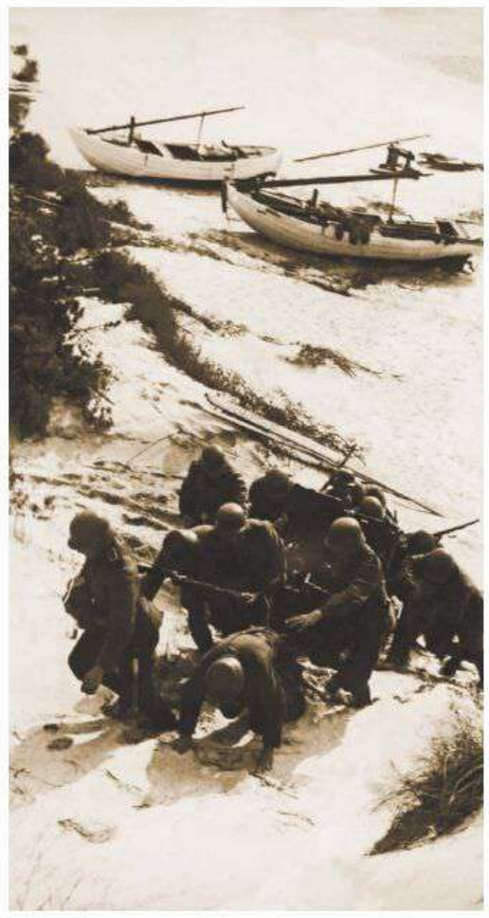
BALKANS

■ *Operation Zeppelin fooled the Germans into preparing additional defences in the Balkans and Greece against a suggested Allied invasion. Like Operation Fortitude, the deception employed fake intelligence and radio reports.*



WEST JUTLAND

■ *Hitler sent reinforcements to the West Coast of Jutland, but soldiers there waited in vain for an invasion. The Germans were deceived by Operation Fortitude and Bodyguard, which also pretended that the Allies would land in Denmark.*



0 700 km

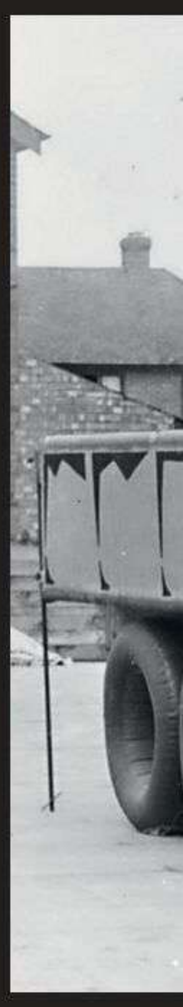
In the spring of 1944, Allied soldiers trained in Britain – some of the exercises were real preparations, but some were part of the hoax.



TANKS: the Allies ordered soldiers in the fake armies, such as FUSAG, to build wooden tanks and cover them with canvas. From the air they looked like real tanks.



LANDING CRAFT: using steel rods and empty oil drums for buoyancy, the Allies designed gigantic fake landing craft tanks. They were intended to create the illusion that the Allies had 400 new landing craft ready for an amphibious assault on France.



through the air and smelled of cooking in the lively mobile field kitchens. The scene was choreographed with field hospitals, weapons depots and enough hangars to accommodate at least two squadrons of RAF Supermarine Spitfire aircraft.

FUSAG also drove around in fake tanks, jeeps and other military vehicles to add to the illusion. Soldiers built wooden vehicles covered with khaki canvas and blew up inflatable rubber tanks too. From the air, the spy planes watched in awe as the military ordnance grew day by day. Some of the counterfeit vehicles did not last long, however – curious cows occasionally punctured the inflatable tanks by standing on them.

To complete the staging, the soldiers often repositioned the false tanks and jeeps. Under the cover of darkness, they dragged the vehicles from one place to another, then used tools to create realistic traces of tyres and tracks along the paths taken. The trails could be seen from the air in daylight.

> “Under the cover of darkness, they dragged the vehicles from one place to another”

Fake landing craft

The fun and games continued at sea. With the help of the British film industry, the Allies created 400 huge fake landing craft tanks (LCTs),

When the air was released from an inflatable tank, two soldiers could carry it easily.



BUSTLE: fake military vehicles, lively field kitchens, along with the noise from the military camp and wireless reports of recruits gave the impression of a huge army.



AIRCRAFT: the brains behind the hoax also ensured that German spies would discover a frighteningly large air force waiting on the southern shores of England. The planes were in fact built of wood and would never take off.

which could land tanks and other heavy weapons during an amphibious assault. One type of fake LCT was called bigbob and was 50 metres long and nine metres wide, but weighed just under five tonnes. The vessels were constructed from steel tubes and heavy canvas and were held up by floating steel drums. It took 30 men about six hours to assemble a bigbob, which consisted of over 1,000 different components. The work was carried out in the dead of night.

The finished LCT was equipped with small wheels, so the soldiers could move it over short, flat stretches to reach the vessel's mooring. Lieutenant Hugh Clark, who headed the shipbuilding, quickly discovered that simulated warfare could be equally as exhausting as the real thing, claiming that the crews often worked half the night submerged in water.

Bigbob had a co-conspirator: the inflatable rubber landing craft assault carrier known as wetbob. When wetbob was deflated, it was just two metres long and less than one metre wide. Inflated it measured 36 metres, but weighed no more than a well-built man: 90 kg. This made the vessel extremely vulnerable to the winds that swept along the coastline. To prevent the inflatable carriers from blowing on to their sides, they were fixed in place with mooring lines and sea anchors.

Near the town of Dover, which was only separated from the French port of Calais by a 50 kilometre stretch of sea, the Allies completed the picture by building a dummy oil storage facility from wooden boards and sewer pipes. At night, German spy planes swept floodlights across the site looking for signs that the tankers were loaded. Below, hard-working FUSAG soldiers lit small, sooty furnaces that covered the fake depot with dirty smoke, adding another layer of realism to the scene.

Nothing was left to chance. Not even when the Nazi's began firing at the fake facility using long-range artillery on the French coast. In response, hired pyrotechnicians, faked 'fire damage' using sodium flares and mobile smoke machines, helping to convince German pilots that their artillery had hit the target.

350
carrier pigeons flew as 'double agents' carrying false intelligence to the Germans.

An attack on Norway

In Scotland and northern England, the units of Operation Fortitude North (OFN) worked just as hard to deceive the Germans. Like their US counterparts in the south, British OFN troops attempted to inflate their numbers and take on the aspect of a mighty army that was ready to occupy the west coast of Norway. Their aim was to fool the German army into retaining far more troops along the coasts of Denmark, Norway and Finland than were actually needed.

As in the south, a group of officers was tasked with broadcasting the sounds of a gathering army, specifically a 350,000-man strong British Fourth Army. The radio subterfuge was codenamed Operation Skye. To create realistic sound effects required a certain number of men, vehicles and planes. The force in the north therefore consisted of a smaller group of genuine soldiers who played the role of a more powerful army as best they could.

The Fourth Army also built wooden aircraft hangers and deployed inflatable tanks, which could not be distinguished from the real thing from the air. The Germans took the bait hook, line and sinker. Due to Operation Fortitude North, 13 of Hitler's army divisions, 15,000 men in total, were ordered to remain at their posts in Norway, Denmark and Finland.

Agents became double agents

Despite the British and US troops' elaborate efforts to fabricate two gigantic >>>>>

MEANWHILE IN THE MEDITERRANEAN



OPERATION MINCEMEAT: THE GERMANS WERE FOOLED

In 1943, the British planted false documents on a corpse and threw it in the Mediterranean, where the Germans would find it. The body was supposed to trick the Germans into believing that the Allies would invade Greece. After finding a family willing to donate a body to the rather insensitively named Operation Mincemeat, the British dressed the body in uniform and equipped it with false identity papers and personal belongings. The Germans swallowed Operation Mincemeat whole,leaving the Allies free to invade Sicily and southern Italy.



> “15,000 men were ordered to remain at their posts in Norway, Denmark and Finland”

German soldiers waited in vain along the Norwegian coast for an invasion that never came thanks to the efforts of the Allied soldiers in Scotland and northern England who took part in Operation Fortitude North.

armies, Operation Bodyguard would almost certainly have been less effective if it weren't for the help of an intricate network of double agents. Even before the Allies decided to create an involved hoax to conceal their true D-Day plans, the British intelligence service had already established a web of double agents to confuse and mislead Hitler. Many of the double agents had originally been Nazi spies before they were captured and 'persuaded' to work for the enemy instead. Such agents, therefore, remained in contact with Abwehr, who continued to believe that they had reliable men in place with the Allies. By maintaining the illusion of a well-functioning corps of Nazi spies, the Allies avoided more Germans spies being sent to Britain. The double-agent operation was run by MI5 and was called Double-Cross or just XX. After the end of the war, it became clear that around 50 German agents had worked secret for Double-Cross.

Juan Pujol underwent two weeks of interrogation before the British intelligence service MI5 dared to hire him.

THE CHICKEN FARMER WHO DECEIVED HITLER

The agents were controlled by intelligence chief Thomas Argyll Robertson, TAR. After years of experience, he knew that to get the German's to take the bait his double agents had to feed the Germans information that matched their expectations. If Hitler feared that a giant British army stood ready in south-east England, Double-Cross' job was to confirm those fears.

The Catalonian Juan Pujol was one of the main reasons that the Nazis bought into the illusion that they had a functioning network of German spies on British soil. The cunning agent had previously worked as a cavalry rider during six months of compulsory military service, then as a chicken farmer and finally as a manager of a one-star hotel in Madrid – all without much success. His dream of using his wits to combat the Nazis was born when he saw the fascists ravaging his homeland during the Spanish Civil War in 1936-39.

"I wanted to start a personal war with Hitler. And I wanted to fight with my imagination", the agent explained later.

Pujol was so determined to be selected as an agent, that he repeatedly contacted the British intelligence service to offer his services. Despite his offer being refused three times, Pujol did not give up. Instead, he contacted the German secret service, who agreed to test him. With his acting abilities, he managed to convince the Germans that he was feeding them vital information from London. In fact, he was living in Lisbon and simply making up fictional accounts of Allied activities using a basic guidebook that described London and England.

Abwehr was satisfied with its talented new agent, however, and codenamed him Alaric. When the Allies got wind that a new German spy was operating in England, they immediately feared that he would expose the Double-Cross operation and thus endanger Operation Bodyguard. At the same time, however, they wondered why the agent passed on so many inaccurate, incorrect or implausible reports. For example, Alaric boasted of having met a snitch in Glasgow that would "do anything for a litre of wine". Fortunately, the Germans understood no more about the

KEY MOMENTS

HITLER REJECTS GENUINE INTELLIGENCE

Days after D-Day, German units found an abandoned British landing craft on one of the beaches in Normandy. The vessel hid top-secret documents with short and detailed plans for the invasion of Normandy. Hitler, however, was still convinced that the Allies would attack Calais and believed that the documents were planted to fool the Germans and so he rejected them.



GROUP II/1A
MADRID 1 TO BERLIN
RCS 128, 130/9/6/44
TFC on 12896 kcs.
AUI on 9288 kcs.
256

1050 G.T
1107 G.T

9/6/44
8/6/44

267. To HEROLD. Please inform LUDWIG MARTIN at your end. Other Stellen not informed. V ALARIC ARABAL reports on 9th June from GOLFPLATZ via PELIPE: after personal discussion on 8th June in LONDON with my agents DONNY DICK and DORICK, whose reports were passed over today, I am of the opinion, by reason of the large troop assemblage in South-east and East ENGLAND which are not taking part in the present operations, that these operations are diversionary manoeuvres aiming to draw on themselves enemy reserves in order subsequently to make a decisive blow at another place. Having regard to the air-raids carried out there and the situation, strategically favourable for this purpose, of the above mentioned assembly area, this [blow] might well be made in the PAS DE CALAIS area, especially as, if there were such an attack, the nearer air-bases would facilitate a continuous and very strong support by the air force for [illegible] undertaking. According to

Even after D-Day, with a single telegram double agent Juan Pujol succeeded in convincing the Germans that the attack was merely a cover for an even greater invasion of Calais.

Scottish preference for beer and whisky than Pujol. It also seems to have escaped their notice that Britain didn't use the metric system.

Once again, Juan Pujol contacted MI5 about spying for them, only this time he was able to reveal that he had been accepted as an agent by the German secret service. As a result, he got the job and came to Britain to work as a double agent codenamed Garbo.

In order to continue to enjoy both Abwehr's and Hitler's trust, Alaric used wireless transmissions to send accurate intelligence alongside the misinformation but when he passed genuine intelligence it arrived in such a way that it always too late to be useful.



The insignia of General George S Patton's fake army boldly showed lightning striking.

Alaric laid the blame for errors on 27 non-existent sub-agents, whom he claimed reported to him from all over Britain. It was pure fiction, but the 27 had made-up names and identities. One of them was Stanley, a Welsh nationalist, who belonged to the notional Brothers of the Aryan World Order. Other sub-agents were the Portuguese travelling merchant, Carvalho, stationed in southern Wales, and a South African called Dick, who hated everything British above anything else on earth.

Even dead fictitious agents could be useful. When the sub-agent Gerbert died, Pujol arranged for an obituary to be placed in the local newspaper. He even managed to get his German handler to arrange a pension for Gerbert's sham widow. Confidence in agent Alaric was unwaveringly constant.

WIFE WAS ALSO DECEIVED

Pujol proved just how far he would go to continue working as a double agent in June 1943, when his role as an agent came into play in his private life. Pujol's Spanish wife, Araceli, who had faithfully helped Pujol pursue his great dream of working for MI5, was unhappy in cold and grey Britain. Pujol was always busy; she spoke no English and because of security concerns had been banned from interacting with other Spaniards in London.

When the pair were invited to a celebration at the Spanish embassy, she lost patience when Pujol refused to go. Araceli called to remonstrate with her husband's boss, Harris, stating that she >>>>

MI5 faked Pujol's death from malaria in Angola in 1949, but in reality, he lived in Venezuela.



DOUBLE AGENT

JUAN PUJOL HAD MULTIPLE IDENTITIES

Catalonian Juan Pujol had little success as a chicken farmer, manager of a hotel or as an army cavalry rider. As a double agent, on the other hand, he helped secure the Allied victory in World War II.

1 ***Before World War II, Pujol was forced to serve both Communists and Fascists in Spain. He abhorred both extremes and decided to fight against totalitarian regimes.***



2 ***For the German intelligence service, Pujol was known as the skilled agent Alaric, on the other side of the channel as Garbo. At home, he was Juan Pujol.***



3 ***Pujol was married to Araceli who helped him to get hired by the British intelligence service. She wasn't always happy with life as an agent's wife, though.***

AGENT'S TOOLKIT

Creative minds devised a whole arsenal of new tools for World War II secret agents. With them, the agents could, for example, defend themselves, read confidential mail or take down the enemy.

With a cyanide suicide pill, agents could avoid suffering torture if captured.

This custom-made tool could be used to fish letters easily from unopened envelopes.



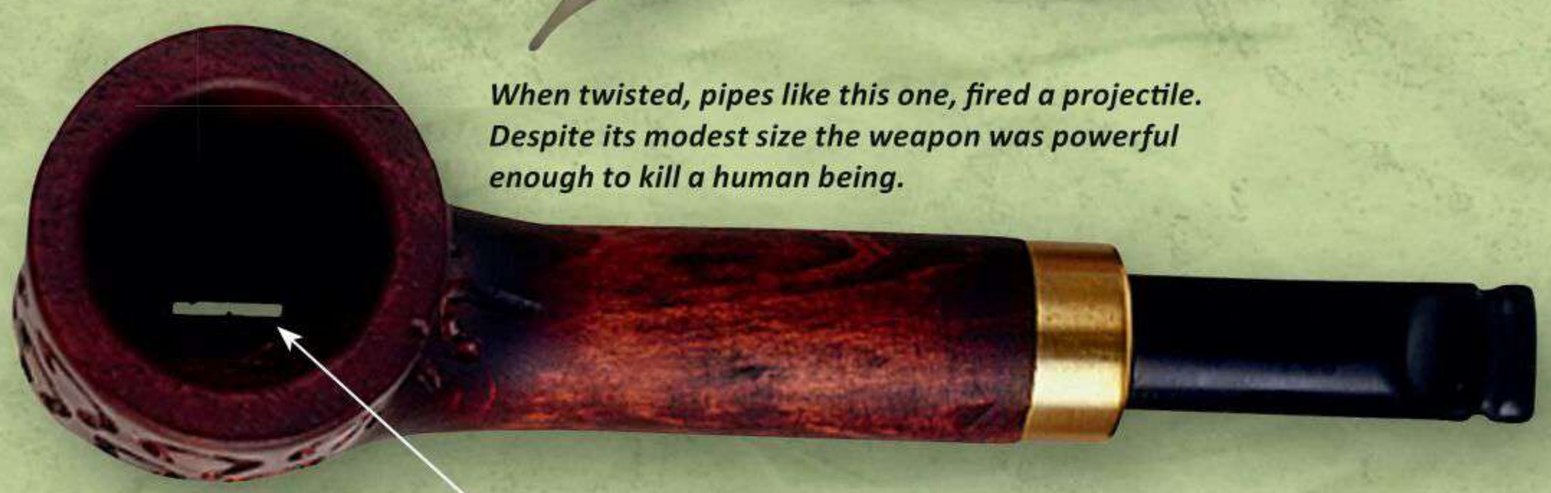
The pliers clamped the letter inside the envelope.

The letter was the rolled up and pulled out.



Playing cards with hidden maps inside helped Allied prisoners escape Germany. The cards could be separated when wet.

The US intelligence service developed a glove with a hidden 38-calibre pistol. The weapon was intended to put down an enemy at close range.



When twisted, pipes like this one, fired a projectile. Despite its modest size the weapon was powerful enough to kill a human being.

Hidden projectile

Match boxes were used to conceal miniature cameras.



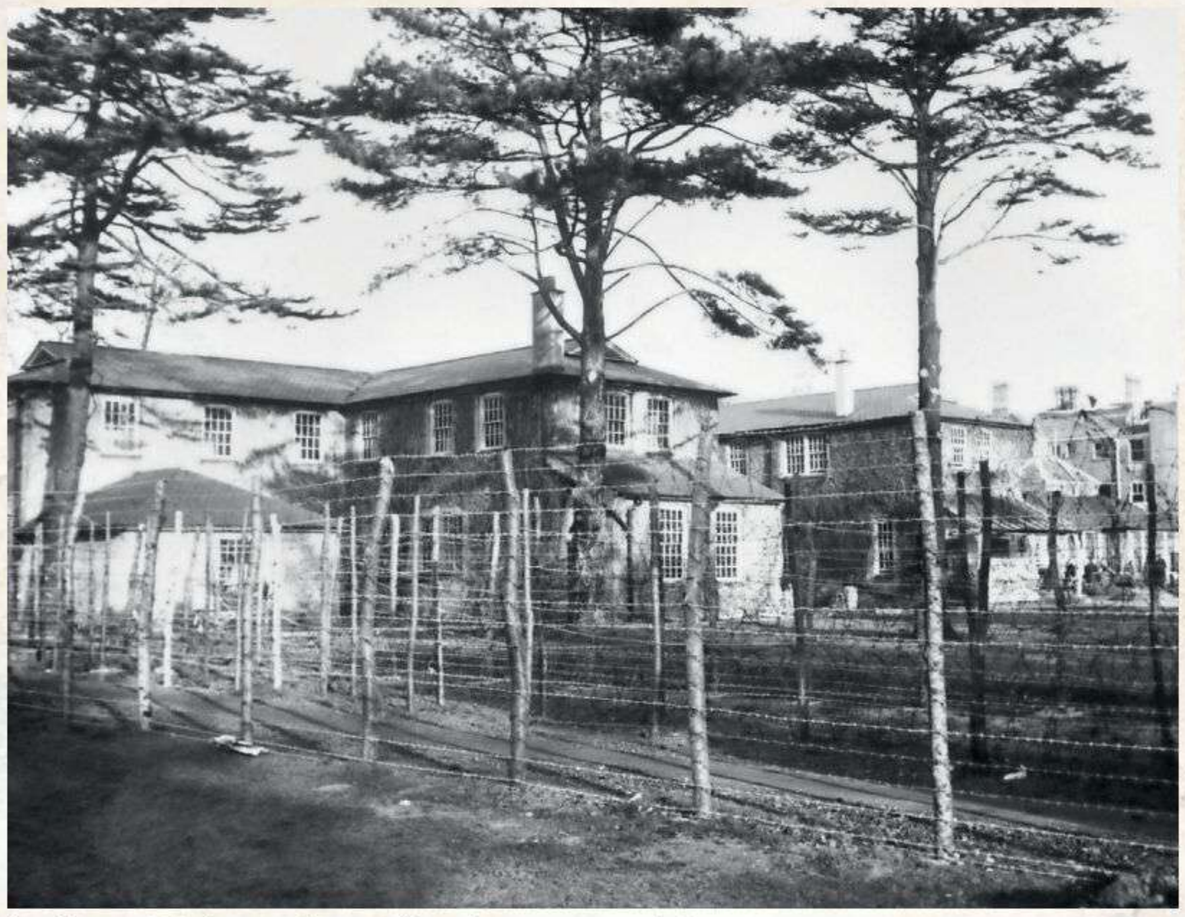
would not stay on English soil five minutes longer. Furthermore, if she were not allowed to leave the country, she would go to the Spanish embassy and reveal the truth about her husband.

Pujol, who was abroad, quickly boarded a plane to return to London. Once there, he arranged an operation to fool his own wife. Shortly after her complaint, Araceli received a letter from her husband telling her that he had been arrested and that she should pack him a bag for his stay in prison.

With tears flowing down her cheeks, Araceli again called on Harris, who told her that she would have to leave England because of her outburst and that Pujol would be leave with her. He said that when her husband had been told that he had to give up his job, he had been so furious with his MI5 bosses that they'd called the police and had him arrested.

Chastened, Araceli defended her husband's right to stay, claiming he was doing important work. Shortly afterwards, however, she changed tack once more and again called Harris to tell him she was going to flee with the couple's child. The agent's handler went to their apartment only to find Pujol's wife had apparently attempted to commit suicide by opening all the gas taps. Harris assigned a man to monitor the distraught Araceli.

The next day, Araceli promised to stay in England, if only they would release her husband. She was blindfolded and taken to Pujol's staged cell. Overcome with emotion, Araceli promised that she would fully support her husband in his work.



In Camp 020 in south-west London, captured German agents were interrogated and 'persuaded' to change sides in the war.

Revealed D-Day

It was one thing to fool his wife, but the question remained whether Pujol could hoodwink Hitler when it really mattered. In the first days of June 1944, Operation Bodyguard was put into full swing. Wireless operators and double agents transmitted unambiguous reports that an invasion of Pas-de-Calais was imminent. Garbo reiterated the message.

The hoax's big finale played out overnight on 5th-6th June in the house at Crespigny Road in London, where Garbo, TAR, Harris, Fleetwood-Hesketh and Haines stood around the wireless radio transmitter. Harris had emphasised the need for Garbo to send accurate intelligence to the Germans if they were to continue to trust him. The men had therefore agreed that the double agent should expose the impending Allied invasion of Normandy.

Alaric had told Abwehr that he would send them an important message at 03.00 and that they should be ready to receive it. The double agent had, however, calculated that a radio signal relayed by the wireless switching centre in Madrid would be delayed by a good three hours, and that the Germans would not receive his message before 06.00, when the attack would already be underway. At 03.00, Pujol sent this cryptic message to Abwehr.

"He [Alaric's sub-agent Fred] states that he wrote to me three days ago announcing anew the distributions of cold rations and vomit bags, etc to the Third Canadian Division… [who now] had embarked."

The Germans couldn't fail to understand the importance of the message. If the Canadians had left their camp and not returned, it could only mean one thing: they had set sail for France. Hiltingbury – which Garbo had previously told the Germans was the 3rd Canadian Infantry's base – was just over 10 kilometres north of Southampton, which lay just across the channel from Cherbourg in West Normandy. It was therefore reasonable to assume that the troops intended to land there.

To the surprise of the five men waiting in Crespigny Road there was no response from the Germans, even after 06.00. It was only eight hours later that they received confirmation that the message had been received. By that time, the fight on the Normandy beaches was already raging.

The Germans held Alaric in even greater regard following his announcement – even if they didn't get the information in time.

"The men had therefore agreed that the double agent should expose the impending Allied invasion of Normandy".

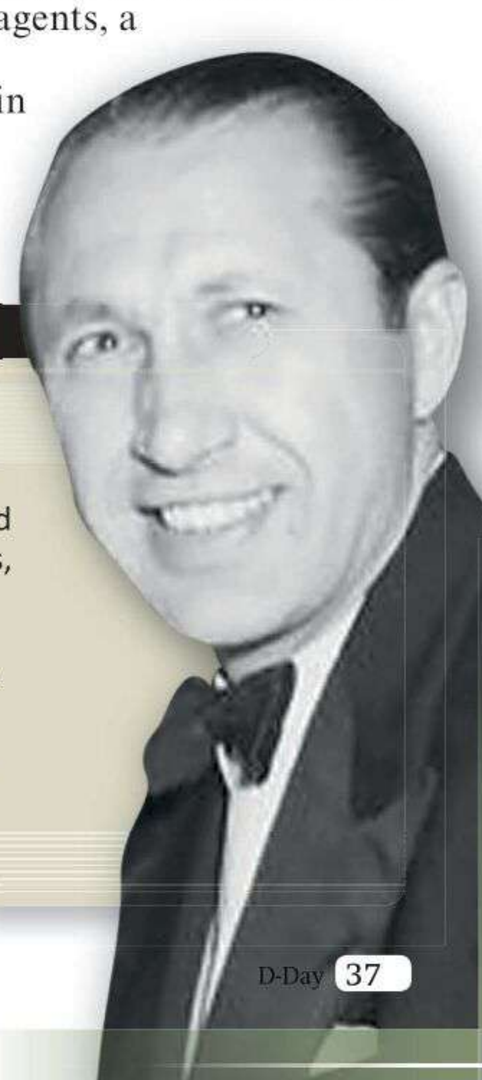
The lie held during the invasion

Even after the first troops had landed on 6th June, Alaric persuaded Hitler that the invasion was merely a diversion for an even greater assault being planned at Calais. All Pujol needed do was to send this message to his German contacts.

"After a personal consultation with my agents... I am of the opinion, in view of the strong troop concentrations in south east and east England, that these operations [the operations around the Caen area] are a diversionary manoeuvre."

Abwehr handed the message to Hitler, who simply took the agent at his word without further investigation.

Operation Bodyguard had been more successful than the Allies could have dared to dream. On 25th November, 1944, Garbo was awarded an MBE by King George VI for his efforts during the Double-Cross operation. He was able to put it next to the Iron Cross, which the Germans had bestowed on Alaric four months earlier on 29th July — to recognise the work of one of their most trusted agents, a man whom they continued to trust in blindly for the duration of the war. ■



DUŠAN POPOV *1912-1981*

THE MODEL FOR JAMES BOND

■ Serbian Dušan Popov was born in Austria-Hungary and spoke fluent German. He gained many influential German friends in the Third Reich, but he secretly despised the Nazis, with whom he'd had bad experiences with during his days as a student. When Popov was offered work as an agent with the Abwehr, he immediately contacted the British authorities and was hired by MI5 as a double agent and given the codename Tricycle. His German case officer called him Ivan. Under the cover of being a businessman, he travelled around Europe and provided intelligence to both sides in the war – true reports to the Allies, fake ones to the Germans. Beside his role as a double agent, he was famous for his expensive lifestyle, extravagant parties and seducing beautiful women. He had a relationship with the French movie star Simone Simon, among many others. Popov is said to be one of the sources of inspiration for Ian Fleming's James Bond character.

Double agent for MI5 – Wild, expensive lifestyle – Inspiration for James Bond





FRANCE REBELS

1940-1944

When the Allies invaded Normandy, Germans soldiers waited for help that never came. All over France, telephone lines were dead, and Hitler's troops were stranded aboard trains on a immobilised network of broken tracks. The sabotage of France's telephone exchanges and railway lines was the result of French Resistance action ahead of D-Day. Throughout the war, the Resistance had put their lives on the line as they fought against the occupying force. They knew that if they fell into Nazi hands, interrogation and torture were the best that they could hope for.

1940-1944

1940 France's first Resistance groups emerge.

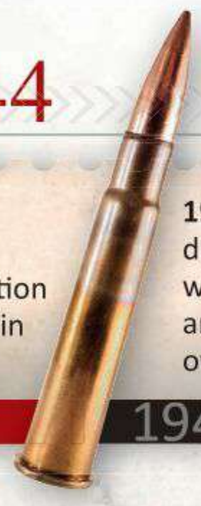
1940 The SOE organisation is set up in Britain.

1944 SOE drops weapons and ammunition over France.

1944 The Resistance sabotage the French railways.

1944 Nazis murder the population of an entire village.

1940 >>> 1944 >>>







The Resistance used illegal newspapers to inform the population about Nazi Germany's atrocities.

On a cool spring night two silhouettes fell quietly through the sky. It was April, 1944. The two figures steered their parachutes towards the landing site in the region of Auvergne in central France, with its wide meadows, clusters of trees and rippling rivers.

Moments later, the pair landed. British major John Farmer and Australian courier Nancy Wake were both secret agents working for the British spy organisation Special Operations Executive (SOE). The two agents had flown from Britain to help train and mobilise the French Resistance before the Allied invasion of Normandy.

While Farmer landed safely on the grass, Wake's parachute became entangled in a tree, and she had to wriggle free.

One of the French men waiting to meet them watched her efforts appreciatively. "I hope that all the trees in France bear such beautiful fruit this year", he commented when she reached the ground.

"Don't give me that French shit", the 30-year-old Wake replied. She was known for her good humour, but she was also uncompromising and fearless. By the end of the war, she topped the most-wanted list of Germany's secret police, the Gestapo.

Only SOE's initiates knew about the group's activities. The organisation had been formed in 1940 with the aim of sending spies into German-occupied areas of Europe. Once there, they had to gather information about German activities and coordinate with local Resistance forces. An important part of their work involved training the Resistance groups to fight. For example, the agents taught members how to assemble and use firearms, and the designated points where British aircraft would drop weapons and explosives. They also supported them as they undertook covert sabotage missions, such as blowing up railway lines.

By 1944, SOE employed up to 10,000 people. Half of those were agents, and almost a third of them were female – women aroused less suspicion in German soldiers than their male counterparts.

SOE's agents – British and French – put their lives at stake when they parachuted into Europe. Not because of the jump itself, but because of the dangers that awaited them on the ground in the occupied territories. German troops and Nazi sympathisers were waiting in anticipation ready to put down anyone who resisted Hitler.

220,000
French were hailed for their part in the Resistance struggle.

"Romeo is kissing Juliet"

The British agents equipped French Resistance groups with wireless radio sets so they could receive messages from the Allies. For example, the BBC's Radio Londres – which was banned in German-occupied territories – regularly broadcast coded phrases for the listening Resistance. Every evening, the announcer would read out cryptic but seemingly innocent "personal messages", such as "Esculapius doesn't like sheep" or "Romeo is kissing Juliet".

Beethoven's fifth symphony was another code, where the first four dramatic tones corresponded to the Morse code sequence for the letter V – dot-dot-dot-dash. V stood



Resistance fighters, called maquisards, carried out sabotage actions against the Germans.

TECHNOLOGY..... CULTURE..... ECONOMY..... EVERYDAY.....



Strike sabotaged coal production

In 1941, dissatisfied French miners united in a major strike demanding better conditions and higher wages before they would return to work. The strike stopped the supply of coal to the Nazi war industry. Soon, the textile and steel industries also walked out with similar grievances and it soon became a nationwide strike. The Nazis put down the action in brutal fashion, starving the workers and deporting the strike's leaders to labour camps in Germany.

for victory. The French Resistance received careful instructions about what to do when they heard these messages.

Hitler's radio operators did everything possible to prevent such secret messages from reaching the peoples' ears. But despite filling the airwaves with noise, they couldn't drown out the Radio Londres' signal.

As D-Day approached, it became especially important to listen carefully to the BBC broadcasts. On 1st June, 1944, five days before the invasion, no less than 200 mysterious messages flew through the ether. For example, the first three lines of the French poet Paul Verlaine's poem *Chanson d'automne* (Autumn Song)

"Les sanglots longs / Des violons / De l'automne" ("The long sobs / Of violins/ Of autumn"). In code, this meant that D-Day would take place within the next two weeks. On 5th June at 23.15 – six hours before the Allies landed in Normandy – the next three lines of Verlaine's poem were read.



French general Charles de Gaulle's freedom fighters could be recognised by their armbands.

"Blessent mon cœur / D'une langueur / Monotone." ("Wound my heart / With a monotone / Languor.") This was the sign that the decisive assault was imminent.

CEASEFIRE-BORN RESISTANCE

Since 1940, the French people had to watch as their nation was overrun by Hitler's troops. The French stood as powerless spectators as swastika flags were draped over symbolic national buildings and monuments, not least in Paris.

France had been divided in two, with an occupied zone in northern and central France, and a so-called free zone in the south. The latter was led by the aging marshal Philippe Pétain and his government who cooperated with – or rather, were governed by – Hitler. The French puppet government, which was based in the spa town of Vichy, had entered into a ceasefire agreement with Germany that would allow it to rule the southern part of France – albeit only in a superficial sense. The advantage of the ceasefire was that the country was not left in ruins.

Many French people felt that this agreement with the enemy was a betrayal of La Belle France. And this attitude sparked the Resistance – both inside the country and among the French living in exile.

Initially, the rebels stuck to peaceful protests, such as



printing and distributing illegal pamphlets, posters and newspapers. They also gathered in small demonstrations against the German occupiers, listened to banned BBC broadcasts, and painted the letter V for victory on the fronts of buildings or in the dirt on a car. The young, in particular, joined the new Resistance groups.

Although members of the Resistance did not immediately participate in armed conflict with the Germans, their actions were of great importance – both for the Resistance movement's own growth and for many in the wider French community. The Resistance's actions were based on the belief that one day the Germans would be displaced. Their methods, however, for bringing about that end became more radical.

GERMANS MURDER A WHOLE VILLAGE

Resistance members lived dangerous lives. Torture followed by imprisonment, deportation to a concentration camp or execution were typical punishments for those who opposed Hitler's troops. Sometimes Germans would come knocking in the middle of the night, with orders to take away a family's father. Often, they never saw him again. At other times, the Nazis executed dozens of French inmates who were being held in German prisons as revenge for Resistance actions. One unfortunate victim was 17-year-old Guy



Using weapons sent from Britain, French Resistance fighters participated in armed combat during the final year of the war.

THE RESISTANCE MOVEMENT'S LEADING FIGURES

The French Resistance fighters gathered in groups that shared the same ideological or religious beliefs. Everyone fought against Hitler's Third Reich, yet each faction had its own weapons and tactics.



ANDRÉ BOULLOCHE 1915-1978

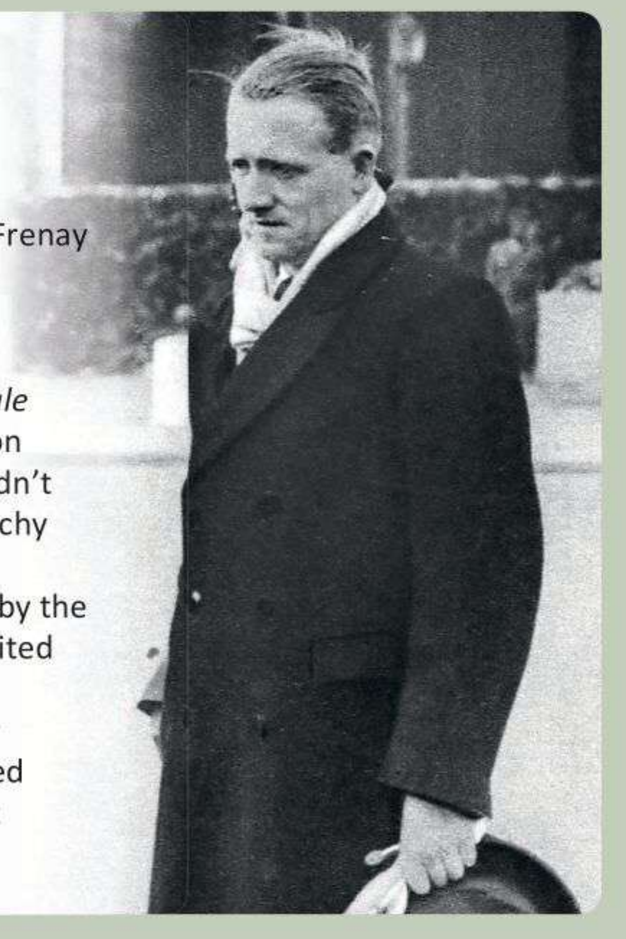
Conservative

■ The *Resistance Organisation Civile et Militaire* (Civil and Military Resistance Organisation) recruited bourgeoisie and senior business leaders. Leader André Boulloche, called for armed resistance.

HENRI FRENAY 1905-1988

Military officer

■ By 1940, Henri Frenay had formed the organisation *Mouvement de Libération Nationale* (National Liberation Movement). He didn't like the way the Vichy government was increasingly ruled by the Third Reich. He edited the Resistance newspaper *Verités* (Truths), and helped set up the Combat Resistance group.





CHRISTIAN PINEAU 1904-1995

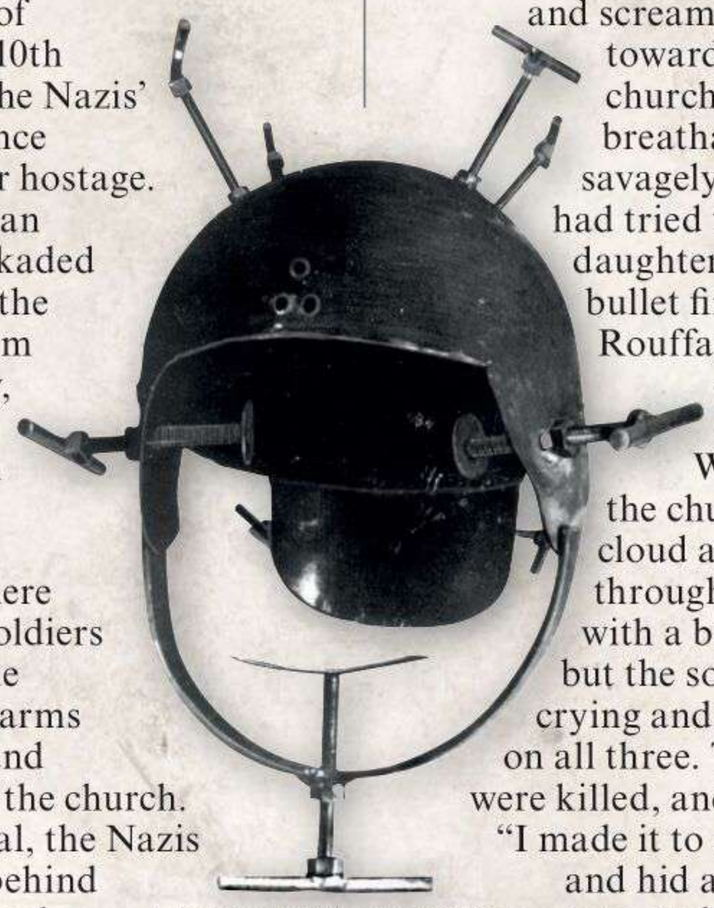
Northern France's leader

■ *Libération-Nord* (North Liberation) was an illegal newspaper, but became a Resistance group in the occupied north of France. Its leader, Christian Pineau, was sent to a KZ camp, but survived.

“The Germans savagely shot down those who had tried to find shelter”

Moquet, who was arrested and executed in 1940 for distributing communist flyers.

The worst case of retaliation was the massacre at the village of Oradour-sur-Glane on 10th June, 1944, which was the Nazis’ response to the Resistance taking a German officer hostage. In the afternoon, German armoured vehicles blockaded the streets and ordered the terrified inhabitants from their homes. Eventually, they herded the men into six outbuildings on the pretext that they were to be guarded there while the soldiers searched the village for an arms cache. The women and children were locked in the church. On a pre-arranged signal, the Nazis positioned themselves behind the machine guns that had already been set up outside the outbuildings and fired until everyone was dead.



A helmet with screws that could be turned to penetrate the skull and push out secrets.

Women shot in church

The anxious women and children in the church heard the machine gun fire. Then 47-year-old Marguerite Rouffanche saw a soldier enter the church and let off an explosion, which filled the space with black, suffocating smoke.

“The women and children, half choked and screaming with fright rushed towards the parts of the church where the air was still breathable… The Germans savagely shot down those who had tried to find shelter there. My daughter was killed near me by a bullet fired from outside”, Rouffanche – the only survivor of the massacre in the church – later testified.

When the Nazis set fire to the church, she used the smoke cloud as cover and escaped through a window. A woman with a baby tried to follow her, but the soldiers heard the baby crying and turned a machine gun on all three. The woman and baby were killed, and Rouffanche ran away.

“I made it to a neighbouring garden and hid among some rows of peas and waited for someone to come to help me. That wasn’t until the following day at 5 pm [17.00]”, Rouffanche said.

A total of 642 inhabitants were murdered, including 205 children.

Short lifespan

When individuals joined a Resistance group, either in the occupied north or the Vichy south, they had to accept a frightening truth: statistically, they would only have six months to live.

When the Germans captured the rebels, they tortured them to learn the names of other Resistance members and their sabotage plans. Therefore, on missions, many carried a deadly cyanide capsule. One bite and the capsule would crack, sparing them from being tortured before their inevitable death.

The French Resistance was to play a prominent role in the fight against Hitler – especially following the decision in late 1943, when Britain, the US and the Soviet Union agreed upon a plan to invade France. For D-Day to succeed, the Allies realised that they needed to work with people inside France who could help gather intelligence and work against the occupying power



The Nazis murdered the entire French village of Oradour-sur-Glane as vengeance for the Resistance taking a German officer hostage.



CHARLES TILLON
1897-1993

Communist

■ Communist group *Francs-Tireurs et Partisans* (French Sharpshooters and Partisans) were supporters of an armed Resistance. One of its leaders was Charles Tillon.



EMMANUEL D’ASTIER
1900-1969

Southern France’s Resistance

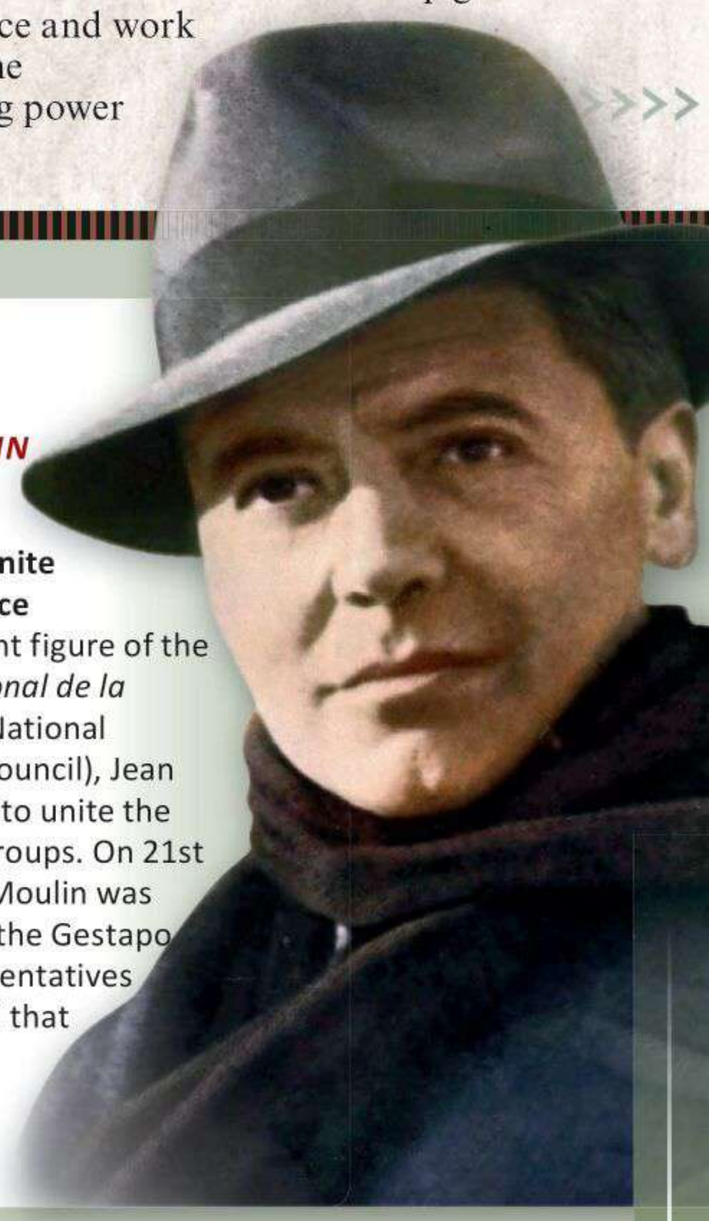
■ In the southern ‘free zone’, which was officially controlled by the Vichy Government, Emmanuel d’Astier, established Libération-Sud (South Liberation). His people published a series of illegal publications, including the newspaper *Libération*. The group supported de Gaulle’s ideology for a non-combatant Resistance.



JOSEPH EPSTEIN
1911-1944

Jews and migrants

■ Joseph Epstein led a Resistance Group of immigrants and Jews called *Main-d’Oeuvre Immigrée* (Migrant Workforce). The Germans tortured and executed him.



JEAN MOULIN
1899-1943

Wanted to unite the Resistance

■ As the front figure of the *Conseil National de la Résistance* (National Resistance Council), Jean Moulin tried to unite the Resistance groups. On 21st June, 1943, Moulin was captured by the Gestapo who’s representatives later claimed that he had committed suicide.

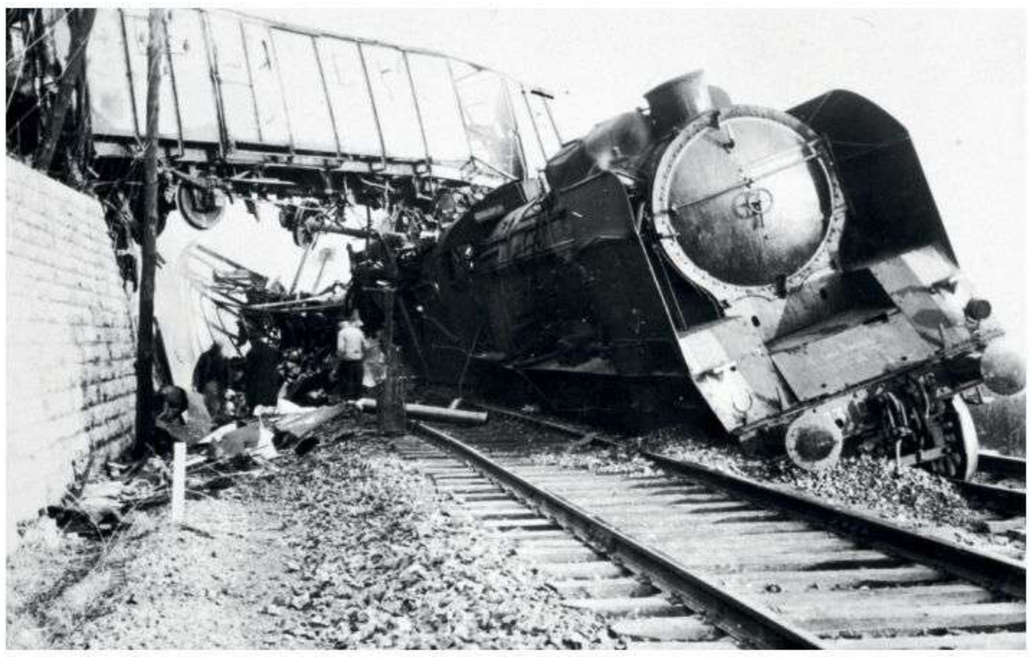
from within. For example, the French smuggled out detailed descriptions and records of Normandy's road network, tides, dunes and German defence works. Resistance groups also established secret escape routes for Allied airmen shot down over France. More than 2,000 men escaped thanks to these routes, but the price was high for Resistance members who helped the airmen flee. Some historians estimate that the French lost one life for every Allied airman who was saved.

One of the most effective French Resistance weapons was sabotage. For example, fighters blew up French arms factories that were forced to supply parts for the German army. They also planted roadside mines on routes used by the German military. Others derailed trains to prevent the movement of German supplies and troops.

One such a sabotage action was put into effect at 02.00 on 13th March, 1943. Under the cover of darkness, nine men gathered at the foot of a high viaduct over one of the country's many rivers.

A train carrying a consignment of French workers to a labour camp in Germany was due to cross the bridge the following week. Under the direction of the young French teacher and communist Georges Guingouin, the men carefully tied a homemade pipe bomb to the bridge, ignited the fuse and hurried to cover.

The blast from the explosion echoed along the riverbed, and when the dust settled, an entire section of the railway bridge had disappeared.



In the first month following D-Day, the French Resistance sabotaged 3,000 railway lines in France, thus, preventing German reinforcements from reaching the front line.



The Resistance sent murder threats to traitors in the form of miniature coffins.

Growing resistance

In the final of the war, when things began to turn sour for the Germans, French Resistance numbers increased sharply. According to historians, in 1943 there were around 40,000 active members in the Resistance; by 1944, 100,000 were secretly fighting the German occupation. The movement was made up of a variety of factions. Some groups were based on political beliefs, such as communism or right-wing conservatism. Others rallied Jews, Catholics or military personnel. There were also geographical groups. One of the movement's most celebrated leaders, Jean Moulin, led an umbrella organisation known as CNR – *Le Conseil National de la Résistance* (The National Council of the Resistance) – which tried to get the Resistance groups to unite in the fight against Hitler. But the movement was plagued by disagreements, arguments and internal divisions throughout the war.

For example, one contentious issue was whether the groups would support the line taken by French general Charles de Gaulle. Exiled in Britain, he led the Free French forces who were fighting against the Axis powers in North Africa. De Gaulle had fled a death sentence issued by the Vichy government and saw himself as a symbol of the French Resistance and the only possible leader of France once the war against the Nazis was over. Like the other Allied leaders, de Gaulle did not believe that the French Resistance fighters should become involved in an armed struggle, but instead should be prepared to help when the Allies, along with the Free French forces, arrived to rescue France. In this way, de Gaulle could ensure that his troops were seen as France's heroic liberators.

Parts of the Resistance movement were deeply critical of this position. The communist and Jewish resistance fighters, as well as the militant leader, Henri Frenay, were particularly opposed to the idea of putting aside their weapons. They did not want to wait for outside help; they wanted to fight.

For the time being, though, they were constrained by the ideology of de Gaulle and, more particularly, the Allies because they were the ones supplying the weapons.

Weapons sent from heaven

Another faction that was not tamed by the exhortations of de Gaulle were holed up in France's mountains or hidden in its impenetrable forests. The group was made up of more than 13,000 resistance fighters, mostly men under the age of 25, who had fled the Vichy government's forced labour camps in Germany. As guerrilla warriors, they were named after the landscape in which they hid. This was the maquis – which means scrubland in French.

Members of the maquis wore black berets to make them distinctive enough to easily recognise one another, but common enough not to arouse suspicion among the Germans. Every day,

new men joined the guerrilla army, which welcomed men of all beliefs. Their impatience to take up arms against the Nazis grew day by day.

But the maquis was missing a very basic ingredient in its armed struggle: weapons. But before long, a heaven-sent solution was in the offing, however.

As D-Day approached, Britain's prime minister, Winston Churchill, decided to arm the Resistance so that they could fight alongside the Allied invasion forces. He therefore ordered more than 1,000 tonnes of weapons and explosives to be dropped over France. The SOE contributed over 650 tonnes of explosives, 723,000 hand grenades and 500,000 small arms – including 198,000 rifles, 20,000 Bren machine guns and 58,000 pistols.

The British made sure that there were no identifying marks on the weapons, so they couldn't be traced if they fell into the wrong hands. At the same time, the maquis supplemented their cache of arms by raiding the Germans' depots.

As well as weapons and ammunition, the Allies also parachuted agents into France as part of Operation Jedburgh. The agents would act as couriers for secret messages and help to coordinate Resistance activity ahead of the invasion forces.

This was why Wake and Farmer landed in the Auvergne, and were met by representatives of the maquis. Once landed, they began their mission to train the resistance fighters, including briefing them on how to carry out a number of sabotage plans under the codenames Vert, Violet, Bleu and Tortue. These plans involved knocking out France's railway, communication and electricity networks and disabling German troop transports before and after D-Day. This would buy time for the Allied troops to gain a foothold along Normandy's coastlines before German reinforcements could arrive.

The French Resistance blew up tracks to paralyse the rail network.

MEANWHILE IN GREECE



BRUTAL NAZI RETALIATION IN KALAVRYTA

On 10th December, 1943, Nazi general Karl von Le Suire ordered the roundup of all the men over the age of 12 from the Greek town of Kalavryta, while the women and children were locked in a school that was then set on fire. The women managed to escape, but the men were shot. The retaliation was for the alleged murder of 77 Germans by the Greek Resistance. More than 1,175 died in the massacre.

SABOTAGE IMMOBILISED RAILWAY NETWORK

Late in the evening of 5th June, while the invasion forces were getting ready on the British side of the channel, the BBC broadcast no fewer than 200 encoded messages. One of them said *"les dés sont jetés"* ("The dice are cast") – a signal that the invasion was about to take place and that it was time for Resistance groups across the country to carry out the four pre-arranged sabotage plans. The fighters heard the message and emerged from their hiding places, armed with explosives, tools and small arms.

Over the next 24 hours, the railway system was immobilised by up to 1,000 separate sabotage actions. The freedom fighters blew up tracks and locomotives, bridges went up in smoke, and sections of line disappeared. Some Resistance groups hit generators at power plants, while others cut key power cables. They also disabled the country's telephone exchanges and Hitler's forces very waiting in anticipation at the end of the dead phone lines for situation reports that never came.

1,000 illegal newspapers were published by French and Belgian Resistance groups.

On the beaches of Normandy, German soldiers waited in vain for reinforcements. The troops that could have helped them were stranded aboard trains on the immobilised rail network. More than half of the country's trains were stuck. Meanwhile, British, US, French and Canadian soldiers began their assault on the Normandy coastline.■



THE NIGHT BEFORE

1944

Darkness had fallen by the time the paratroopers assembled on a runway in southern England to synchronise their watches. It was just before 23.00 on 5th June, 1944. In a few hours' time, the highly trained elite soldiers would jump into the night over German-occupied Normandy with 20,000 other Allied paratroopers as the invasion's vanguard. Their mission was to attack and disrupt the German war machine so that tomorrow's attack on the beaches could proceed according to plan. Everything was at stake. In front of them lay the most dangerous night of their lives.



5th-6th June

23.00 The first aircraft lift off from airfields in the south of England.

00.00 Allied paratroopers are over the Channel.

01.00 British forces capture the Pegasus Bridge over the Orne River.

02.00 Most of the soldiers are landed in Normandy.

04.00 US forces occupy Sainte-Mère-Eglise.

05.30 Bombardment of the invasion beaches begins.

1944

On board the C-47 Dakota transport plane, the paratroopers sat silently, lost in their own thoughts as they looked out of the aircraft's windows. They flew quite low to avoid German radar, and the summer moonlight revealed occasional glimpses of the English Channel below. It was just after midnight.

> "Before the dawn of another day, I'll sink this knife into the heart of the foulest bastard in Nazi land!"



Paratroopers were advised to fight with knives and bayonets to avoid alerting the Germans.

"We were all bunched up, but each man in the surrounding darkness sat deep in his own thoughts and fears," recalled Dwayne Burns from the US 508th Parachute Infantry Regiment. "These friends around me were the best I could ever know... I wondered how many we'd lose before sunrise tomorrow. I prayed silently, 'Lord help me do everything right. Don't let me get somebody killed and don't let me get killed either! You know we're too young for this.'"

Major General Maxwell Taylor was in command of the 101st Airborne Division and just before departure warned his men that it would be difficult to distinguish friends from enemies in the dead of night. Therefore, they were to fight only with knives and bayonets and avoid using firearms until dawn. He'd also said taking prisoners of war would be a hindrance to the mission. They had to find a suitable way to get rid of any prisoners.

Army's toughest troops

The 101st was one of three airborne divisions that took off from British soil late on the evening of 5th June, 1944. The three divisions comprised 13,400 US and nearly 7,000 British paratroopers. 1,200 Dakotas would transport them to Normandy, where they were to confuse and disrupt the German occupying forces to prevent them from launching a coordinated counterattack against the landing forces on invasion morning. Among other things, the paratroopers were tasked with securing access roads to the beaches, destroying bridges and occupying small, strategic bridgeheads inland.

One US airborne division – the 101st Airborne – had been lodged in hangars west of London for five days. Here the men had killed time by stripping down their weapons, lubricating them and grinding their bayonets repeatedly.

Some had bought large combat knives in London, while others had acquired razors. The blade allowed them to silently kill a man by sneaking up from behind and slitting his throat. It was all part of their tough training. Some had even been forced to crawl through the blood and guts of pigs to harden them for the tasks ahead.

Shortly before departure, many paratroopers had shaved their hair in the style of a Native American mohawk, and painted their faces black with boot polish and soot, so they'd look as gruesome as possible. The Americans had successfully planted a rumour among the Germans that US paratroopers were criminals from the worst US prisons. There seemed no good reason to shatter that illusion.



More than 20,000 British and American paratroopers were dropped over Normandy in the early hours of 6th June, 1944.

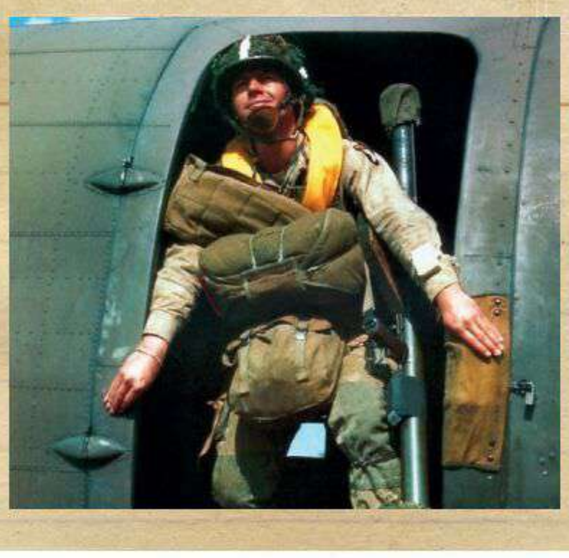
Just before departure, senior officers had delivered pep talks. Colonel Howard 'Jumpy' Johnson, who led the 501st Parachute Infantry Regiment, arrived at the hangar in a Jeep, and as he swung his legs out the side door, his ornate pearl-handled revolvers could be seen on each hip. 2,000 men stood and watched how he pulled a huge knife from one boot and swung it over his head as he shouted to rapturous applause:

"Before the dawn of another day, I'll sink this knife into the heart of the foulest bastard in Nazi land!"

Through a wall of fire

General Eisenhower stood on the runway and saluted, allegedly with tears in his eyes,

TECHNOLOGY..... CULTURE..... ECONOMY..... EVERYDAY.....



Tough training for mission

Paratrooper training during World War II was some of the toughest in US history. Only 2,000 of the 7,000 applicants of the newly formed 506th Parachute Infantry Regiment made it through the rigorous admission tests in 1942.

Many more were eliminated after days of continuous push-ups, jogging and boxing. Those who made it through were trained in Fort Benning where serious injuries were common because of the realistic training programme.

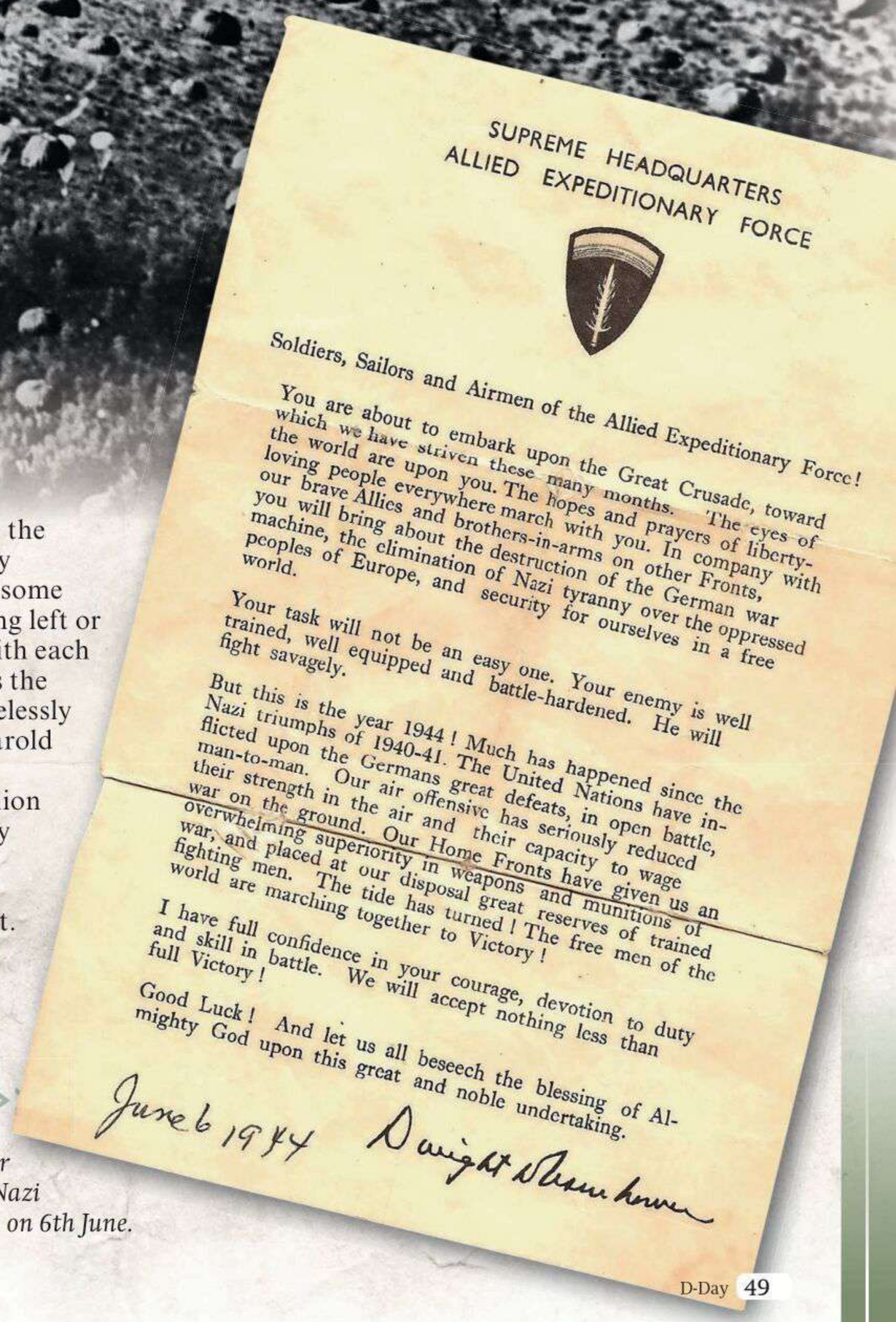
as the planes took off from the English runway. The swarm of Dakotas headed for the English Channel, where they navigated with help from lights from patrol boat *Gallup* and a submarine at the checkpoint marked 'Hoboken'. The pilots were afraid. Many had never flown in a war setting and weren't trained for night-time flying or coping with flak fire. Their transport aircraft possessed no armour or weapons. They flew close together in V formations leaving just 30 metres between wing tips, with the following group a mere 300 metres behind. They flew with no radio contact or lights, except for small blue tail lights for the aircraft behind to follow.

As they approached the drop zones on Normandy's Cotentin Peninsula, the planes descended to just 200 metres altitude, the planned height for jumping. It was critical the men dropped from the sky for as short a time as possible.

But just as they crossed the coast, the planes encountered dense cloud cover which completely blinded the inexperienced pilots. They instinctively spread out – some rose, others dived or swung left or right to avoid colliding with each other, and within minutes the formations had been hopelessly broken up. Lieutenant Harold Young from the 326th Airborne Engineer Battalion recalled the feeling as they came through the clouds:

"We were all alone. I remember my amazement. Where had all of those C-47s gone?"

The pilots had turned on the red lights over the doors while over the Channel Islands, >>>>



SUPREME HEADQUARTERS
ALLIED EXPEDITIONARY FORCE

Soldiers, Sailors and Airmen of the Allied Expeditionary Force!

You are about to embark upon the Great Crusade, toward which we have striven these many months. The eyes of the world are upon you. The hopes and prayers of liberty-loving people everywhere march with you. In company with our brave Allies and brothers-in-arms on other Fronts, you will bring about the destruction of the German war machine, the elimination of Nazi tyranny over the oppressed peoples of Europe, and security for ourselves in a free world.

Your task will not be an easy one. Your enemy is well trained, well equipped and battle-hardened. He will fight savagely.

But this is the year 1944! Much has happened since the Nazi triumphs of 1940-41. The United Nations have inflicted upon the Germans great defeats, in open battle, man-to-man. Our air offensive has seriously reduced their strength in the air and their capacity to wage war on the ground. Our Home Fronts have given us an overwhelming superiority in weapons and munitions of war, and placed at our disposal great reserves of trained fighting men. The tide has turned! The free men of the world are marching together to Victory!

I have full confidence in your courage, devotion to duty and skill in battle. We will accept nothing less than full Victory!

Good Luck! And let us all beseech the blessing of Almighty God upon this great and noble undertaking.

June 6 1944 Dwight D. Eisenhower

General Eisenhower called for a "Great Crusade" against "Nazi tyranny" in a letter to troops on 6th June.

ELITE SOLDIER'S KIT

A paratrooper was an elite soldier who operated behind enemy lines. He carried all his own equipment and his total weight was 180 kg.



10-metre-long rope.

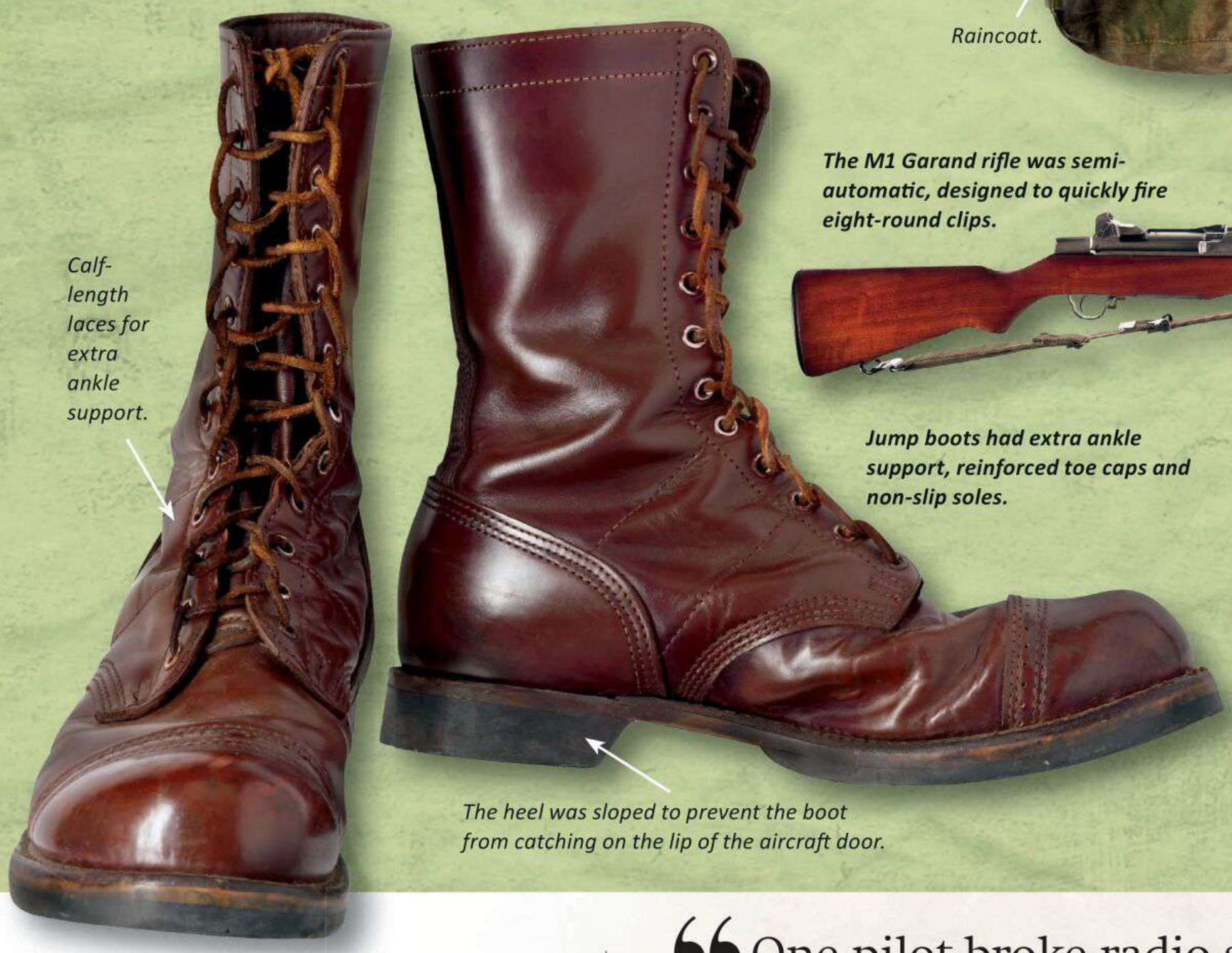
Raincoat.

The shoulder bag was stuffed with rations and ammunition. There was rope if the soldier needed to climb down trees or buildings.



The M1 Garand rifle was semi-automatic, designed to quickly fire eight-round clips.





Calf-length laces for extra ankle support.

Jump boots had extra ankle support, reinforced toe caps and non-slip soles.

The heel was sloped to prevent the boot from catching on the lip of the aircraft door.



Pin.

The MK II was christened the "pineapple grenade" because of its appearance. It was filled with TNT and was fatal within a five-metre range.

>>>> indicating that the troops should "stand up and hook up", ready to go. When they turned green, they were to jump. The commander had to jump first, while a sergeant was given the task of pushing anyone who froze before their jump.

"One trooper asked the sergeant if it was true that he had the orders to shoot any man who refused to jump", recalled Tom Porcella from the 508th Parachute Infantry Regiment. "'That's the orders I've been given.' He said it so softly that everybody became quiet."



Paratroopers were particularly vulnerable while floating down and just after landing. Even at night, the parachutes were visible from distance.

> "One pilot broke radio silence to yell in desperation: "I've got a paratrooper hung on my wing""

Sidney Ulan, pilot with the 99th Troop Carrier Squadron, was chewing gum when his mouth went dry from fright. From out of nowhere hell seemingly broke loose. Orange, red, blue and yellow tracers, explosions and pillars of light from huge searchlights filled the sky. The German flak batteries had discovered them.

"It seemed almost impossible to fly through that wall of fire without getting shot down, but I had no choice. There was no turning back," Ulan remembered.

Bullets easily passed through the transport aircraft' unprotected wings and bodies. For private John Fitzgerald from 502nd Parachute Infantry Regiment, the sound of bullets piercing the hull sounded like "corn popping".

The plan had been to fly at 150 km/h or less to make easier for the soldiers to jump, but this made the planes easy targets. Several planes sped up to 240 km/h or rose to 600 metres altitude, while throwing themselves right and left in desperate evasive manoeuvres. Inside the planes, the soldiers were thrown around in all directions before both troops and materiel were flung out into the night.

DROPPED INTO THE ENEMY'S ARMS

Many men saw planes beneath them as they jumped. Some watched as their own planes plummeted to the ground without knowing where they were. Almost all the aircraft were hit by something. One pilot broke radio silence to yell in desperation:

"I've got a paratrooper hung on my wing". Another pilot offered advice:

"Slow down and he'll slide off".

Pilot Chuck Ratcliff remembered:

"In this frightful madness of gunfire and sky mixed with parachuting men and screaming planes, we found we have missed the drop zone and were now back over the water. We were dumbfounded."

Amid the chaos sat Ray Calandrella from 506th Parachute Infantry Regiment,



The 'cricket' enabled soldiers to distinguish friends from enemies at night. One click should be answered with two.

The ammunition belt was spray painted in camouflage colours and equipped with webbing and gas mask. The belt could hold 80 rounds for the M1 Garand rifle.

staring intently out the window. Suddenly, a flak shell exploded just outside the plane, the green light came on and within 10 seconds all the plane's human cargo had jumped – into an area packed with Germans. Calandrella was one of the last to leave the plane. As he descended, he instinctively threw his hands up in front of his face in a futile gesture to ward off the thousands of bullets zipping past. Within 30 seconds two from the group had died. Their chutes had been tangled in some trees, making them easy targets for the German soldiers as they dangled helplessly beneath.

Don Ross from the same group landed right next to a German command post and was quickly surrounded by around half a dozen soldiers. They shouted "shoot the Americans". Ross was convinced he was about to executed, but an English-speaking German officer intervened. He revealed his brother had been captured by the Americans and wanted to ensure the Geneva Convention was upheld.

40 percent of 101st Airborne Division soldiers were captured, wounded or killed during the first 24 hours.

SCATTERED BY THE WIND

For those who managed to land unnoticed and unscathed, the next part of the operation began: to find their unit. The cloud cover and massive shelling had, however, led to the paratroopers being randomly scattered across the entire Cotentin Peninsula. Some regiments were spread over 20 kilometres.

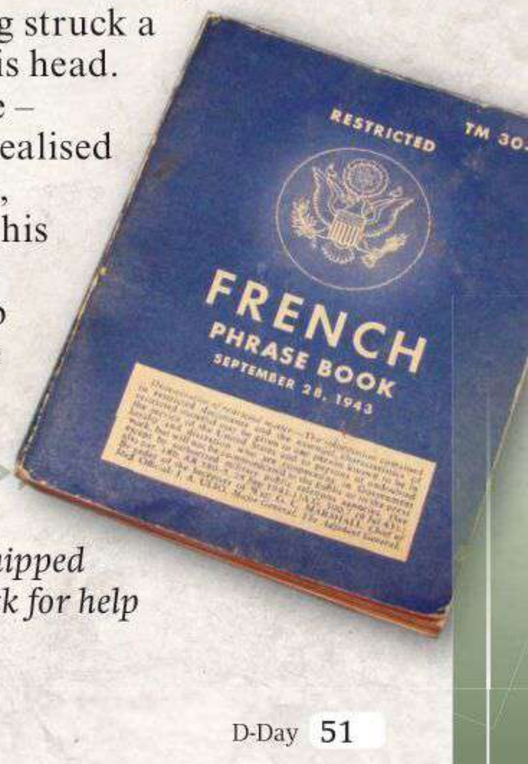
Captain Sam Gibbons of the 501st Parachute Infantry Regiment was alone for an hour before he glimpsed another figure. He clicked once with his 'cricket' (clicker device), which had to be answered in code with two clicks. He received the right response and "suddenly I felt a thousand years younger".

"Both of us moved forward so we could touch each other. I whispered my name and he whispered his. To my surprise, he was not from my plane. In fact, he was not even from my division."

Others like "Dutch" Schultz were alone all night. When he used his cricket, he was greeted by machine-gun fire. When he aimed his rifle to fire back, Schultz discovered he hadn't loaded it: "I'm totally unprepared for this," the paratrooper thought ruefully as he crept away.

Sergeant Dan Furlong from the 508th regiment was better set. He'd trained intensively in small arms and shortly after landing on his own had sneaked up to a farmhouse packed with Germans. Sidling up to the wall he could hear them talking, and they must have heard him too, because a soldier suddenly appeared around the corner to investigate what was happening. His hard training kicked in and, instinctively, Furlong struck a blow to the side of his head.

It proved effective – before the German realised what was happening, Furlong had flipped his rifle and stabbed the slender bayonet deep into his body. By the time the other Germans knew what had >>>



Allied soldiers were equipped with phrase books to ask for help from French civilians.

happened, Furlong had gone. Other soldiers who'd landed unharmed were so happy to have survived the jump that – in a state of shock – they celebrated survival as a victory. Private Francis Palys from the 506th regiment witnessed one of the craziest episodes when his small squad heard singing from a farm near Vierville. Palys and his unit sneaked close to find drunk US soldiers who'd found a barrel of calvados in the cellar.

British stormed bridges

While the US paratroopers found themselves in chaos, the British were able to stick more closely to their plan at Ranville near Caen. 49 of the 69 transport gliders carrying British troops, Jeeps and anti-tank guns landed safely in their designated landing zones. Their mission was to capture Pegasus and Horsa bridges, and when five of the gliders landed just 35 metres from their targets, the Germans were caught by surprise.

The British soldiers came rushing out of the gliders and completed the mission in just 10 minutes. Only two paratroopers died in the assault.

The Americans, on the other hand, struggled to regroup in small groups and get their bearings before they could embark on their missions. Lieutenant Colonel Robert Cole landed just outside the village of Sainte-Mère-Église, 10 kilometres from his target destination. He and his 502nd regiment were supposed to secure the roads leading down to the Utah beach, but it had taken Cole an hour just to find out where he was. It then took even longer to put a unit together – by 04.00 he'd not even gathered 50 men.

Town was liberated

Closer to Sainte-Mère-Église, Lieutenant Colonel Edward Krause from the 505th regiment managed to gather 180 men. His aim was to occupy the town, which had become an accidental battlefield a few hours earlier during the parachute landings.



British gliders and parachutes are scattered across the fields near Ranville on 6th June. Two-thirds of gliders landed in the right place.

A few groups of US soldiers had been unlucky enough to be dropped over the town, which had been lit up by burning buildings, set ablaze by Allied bombs or stray anti-aircraft shells. Those Germans in the town at the time had been extinguishing the flames and were on high alert. They immediately killed all paratroopers they could see, while others were sucked into the flames as their chutes caught fire. One survivor was John Steele from the 505th regiment, whose parachute caught in the church tower. Dangling above the ground precariously, he became an anonymous spectator to the slaughter of his colleagues and survived only by playing dead.

"Roman candle" was the term for a soldier whose parachute failed to open, as they hit the ground.

As Krause approached Sainte-Mère-Église, it was clear that the town had once again fallen silent. The Germans had inexplicably decided to go back to bed after killing the intruders. With a smaller group, Krause was able to sneak into the town without encountering any resistance. A drunk Frenchman directed them to the German billets, which they surrounded. 30 Germans immediately surrendered, while another ten were shot trying to resist. It meant the small French town – one of the night's main targets – became the first to be liberated during the invasion.

US took out flak battery

At 04.00, John Fitzgerald from the 502nd regiment found himself in a company of three. Together they searched for others as US gliders were preparing to land over their heads. Next to them, a German flak battery began to fire on the aircraft.

The three Americans were able to easily crawl all the way to the battery without being spotted before the group's captain yelled:

"Let's get those bastards!"

"I emptied my M-1 clip at the two Germans on the left," Fitzgerald related. "In a moment it was over. Perspiration broke out on my forehead, my hands were trembling. It was the first time I had ever fired at a living thing. I noticed the torn condom hanging loosely from the end of my rifle. I had put it there before the jump to keep the barrel dry, then forgot about it."

The three soldiers continued toward another, larger battery, but met resistance and were separated. Day dawned with Fitzgerald alone and lost.

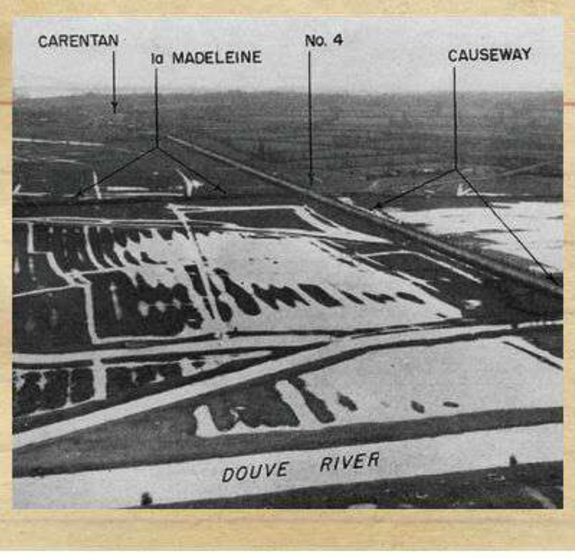
Invasion came as a relief

While the British 6th Airborne Division had successfully assembled and captured several key bridges to complete practically all their mission objectives, all the commanding US airborne officers felt cut off and surrounded. Only a small percentage of the 101st Airborne Division's complement of 6,000 men had found each other by dawn. They had serious doubts they'd make it. Even as D-Day came to a close, only 2,500 of the division's men had gathered together.

Lieutenant Colonel Cole from the 502nd regiment had only collected 75 men by the end of the night, less than half of what he'd expected. They'd captured ten Germans but were still hours from securing the roads to Utah beach. At the same time, no Americans had captured or blown up the bridges as they'd been instructed to. They could only hope the invasion arrived and others had accomplished what they'd not been able to do themselves. Therefore, it was with some relief that Captain Shettle from the 506th regiment saw the bombardment begin on the coast.

"As dawn broke, we could observe one of the most impressive sights of any wartime action. Wave after wave of medium and light bombers could be seen sweeping down the invasion beaches to drop their bombs." ■

TECHNOLOGY | CULTURE | ECONOMY | EVERYDAY



Germans opened the floodgates

Several paratroopers from the 82nd Airborne Division received a nasty surprise when they came down on French soil. The Germans had flooded large fields using the lock system at Carentan. The water was no more than one metre deep in places, but the solders weighed 180 kg with all their specialist equipment. Many couldn't stand up after landing and drowned before they were able to cut themselves free from their parachute harnesses that were dragging them down.

THE AIRBORNE ATTACKS



Three airborne divisions were dropped over the Normandy in the early hours of 6th June: two US and one British. The air forces were tasked with securing strategic positions and creating havoc among the Germans.

OPERATION TONGA

- ***Force:*** *6th Airborne Division (UK)*
- ***Objective:*** *ensure the invasion's eastern flank by capturing bridges over the Orne River near Caen.*
- ***Results:*** *on the morning of 6th June, British troops finished much of their mission. The following evening, all targets were met.*



OPERATION CHICAGO

- ***Force:*** *101st Airborne Division (US)*
- ***Objectives:*** *support the landing at Utah by securing access to the beach and destroying bridges over the Douve River near Carentan.*
- ***Results:*** *the airdrop went haywire, and none of the bridges over the Douve were captured.*



FRANCE

SAINTE-MÈRE-ÉGLISE

CARENTAN

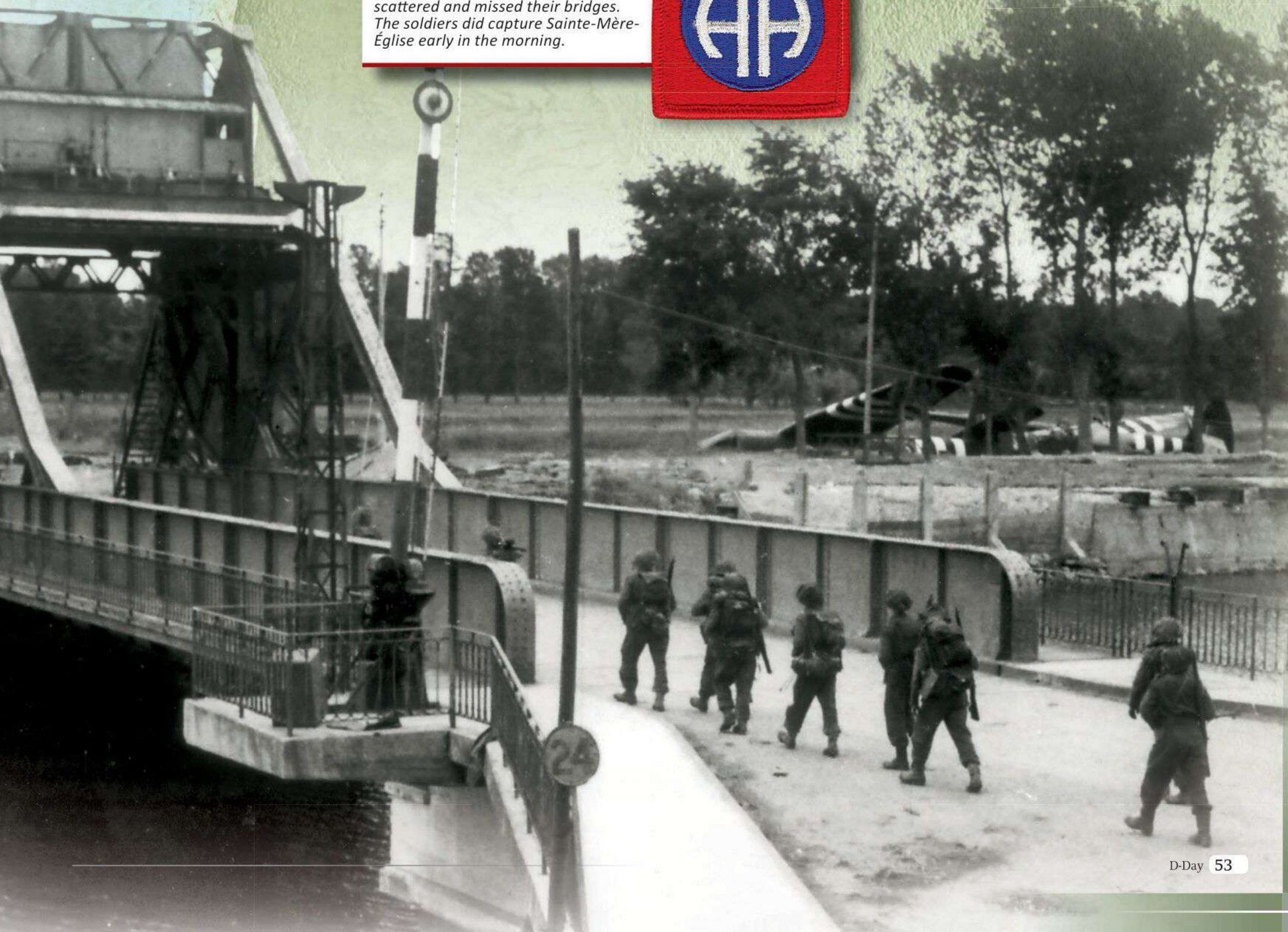
CAEN

The Pegasus Bridge over the Orne River at Caen was stormed by the British at 01.00. The bridge provided an important link between the coast and the soldiers inland.

OPERATION DETROIT

- ***Force:*** *82nd Airborne Division (US)*
- ***Objective:*** *take Sainte-Mère-Eglise, secure more bridges and protect the invasion's western flank.*
- ***Results:*** *the paratroopers were scattered and missed their bridges. The soldiers did capture Sainte-Mère-Église early in the morning.*







NORMANDY LANDINGS

1944

At 06.30 on 6th June, the seasick men in the flat-bottomed boats off the French coast finally receive the signal to attack. The largest military invasion in history has begun. By the end of the day the Allies will have landed up to 150,000 soldiers on the Normandy beaches, smashing a huge hole in the Atlantic Wall and establishing a solid beachhead for the decisive offensive against Hitler's Germany. Despite careful preparation, however, things go wrong in several places and one of the five invasion beaches quickly turns into a bloodbath.

6th June, 1944

06.30 First wave of soldiers land at Omaha and Utah Beach.

07.25 The invasion of Gold Beach moves quickly.

07.45 Attack on Juno and Sword beaches.

11.00 Over 3,000 casualties at Omaha Beach earning those who were involved a *Purple Heart*.

13.00 Britons from Gold Beach then advance inland.

21.00 The Allies secure a foothold and then dig in for the night.

1944

Another soldier grabbed his helmet, held it to his mouth and was promptly sick. He tipped the helmet's contents over the side of the boat and rinsed it clean using the waves – up to two metres high – that crashed constantly against the boat.

The soldiers from the US 1st Infantry Division were thrown around helplessly in the small flat-bottomed boat off the coast of Normandy as it made its the way towards shore, which had been codenamed Omaha Beach.

It was a perfect beach to defend; crescent-shaped, approximately 10 kilometres long, enclosed at both ends by high cliffs. The flat sand ended at the tide line with a mound of rocks 2-3 metres high and covered with barbed wire, behind which lay several metre-high seawalls. Beyond this was a deep pit designed to stop tanks and a marsh that stretched to a 30-metre-high, steep slope dotted with German gun emplacements. Only a few heavily-guarded roads led through the cliff and inland.

96
percent of the soldiers from a single company fell on Omaha Beach.

Germans were well-prepared

Omaha Beach was almost impossible to capture. Yet it was a strategically necessary link between the five invasion beaches that US, British and Canadian forces had chosen as landing sites for what would become history's largest invasion.

The first wave of soldiers circled around in their LCVP landing craft some kilometres from the coast. An hour previously, they'd been ordered into the small boats and now they waited for the designated time to attack, 06.30 to arrive.

They had no illusions about the impending battle. The commander of the 1st Infantry Division's 116th Regiment had told his men that two thirds of them would never return home. But right now it seemed that the risk of dying was the least of the problems for the seasick soldiers. If only they could get out of the damn tub-like Higgins Boats that thrashed around in the waves.

The Germans recognised the strategic importance of Omaha Beach to the Allies. The defence, therefore, was substantial. The Nazis hoped to stop the Allies on the beach and force them back into the sea. Hitler believed that if they succeeded, it would be years before the Americans and British dared attempt another invasion of Western Europe.

The Higgins boats stank of vomit. Most of the soldiers had long regretted the huge breakfast they'd eaten on the transport ships before they disembarked into the LCVPs: the US soldiers had gorged on "steak, pork, chicken, ice cream and candy".

Allied rockets now flew over their heads, equipped with warheads fired from Landing Craft Tank (Rocket) boats, specially adapted with 1,000 racks welded to their deck. The crews had been kitted with fire extinguishers – with good reason, revealed medic WN Solkin, who was on board one LCT(R):

"We fired our rockets and hell broke loose. The ship seemed to explode. We listed sharply



Many of the invasion boats reeked of vomit from the the seasick soldiers.

Before the Normandy Landings, soldiers were thrown around in the flat-bottomed boats and many were tired and exhausted from seasickness.

EYEWITNESS

20-YEAR-OLD Cpl Heinrich Severloh, Omaha Beach

LAMBS TO A SLAUGHTER

"I ran to the communications bunker about 15 m away and reported: 'Now it's starting. They're landing!' Once the Americans had firm ground under their feet, they waded in two long lines, one after the other, through the water, with the left hand firmly on the pack of the man in front... The Americans struggled forward with their weapons and packs through the high surf of the cold sea, slowly and utterly unprotected. We were well aware that the GIs below us were being led like lambs to a slaughter."

and I remember being buried under arms and legs. Now, fire extinguishers came into play. Small fires broke out and smoke rose up through the bulkheads. The heat and noise were terrific. Everyone was cursing and screaming and fighting the flames that threatened to envelop the entire craft."

Bombs missed their target

The soldiers in the Higgins boats spirits' rose at the sight of the rockets. A briefing officer had told the infantry:

"There won't be anything left to bother you guys when you hit the beach. We're throwing everything at the Germans, but the kitchen sink, and we'll throw that in, too".

As the first attack wave of 16 Higgins boats approached the coast, Chief Electrician's Mate Alfred Sears watched from the last boat as he fantasised about how the giant bombardment was destroying the German fortifications.

"About one thousand rockets shattered the beach directly where we were to land. It looked pretty good", it seemed to Sears.

What Sears didn't know was that the aerial bombardment had failed completely. Thick cloud had meant that bomber pilots had erred on the side of caution and only dropped their loads once they were certain they were inland to avoid hitting their own men in the LCVPs.

The result was that the bombs fell several kilometres inland. None of them struck the beach so didn't destroy German positions or create the promised craters in the sand. The soldiers would have to take cover on the flat beach.

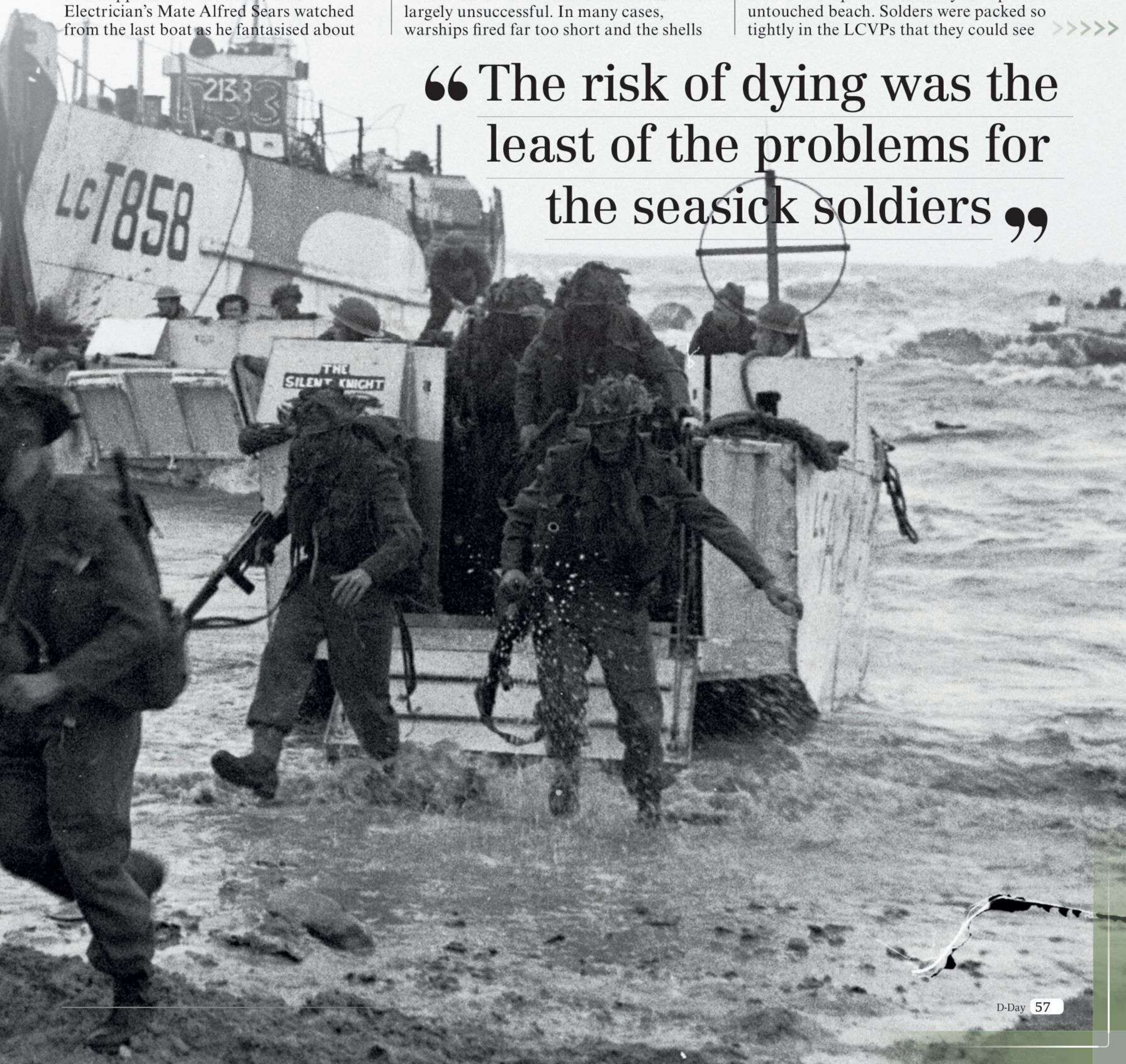
The naval bombardment had also been largely unsuccessful. In many cases, warships fired far too short and the shells landed in the sea. Even when they hit the gun emplacements, they seldom did more than dent the surface – the Germans' defensive positions were too solidly built.

Even the last of the rockets that whizzed over the heads of the men in the LCVPs failed: most rockets splashed aimlessly into the water in front of the German gun emplacements. In one of the landing craft Captain Robert Walker had a shock as he peered through the gun smoke.

"I couldn't believe how peaceful, how untouched, and how tranquil the scene was... All buildings and houses were intact. Church steeples were proudly and defiantly standing in place".

Omaha Beach was a bloodbath

Now it was up to the infantry to capture the untouched beach. Solders were packed so tightly in the LCVPs that they could see



> "The risk of dying was the least of the problems for the seasick soldiers"

nothing but the helmet of the soldier in front. They remained unaware of the failed bombardment and as they neared the shore, rejoiced at the silence that followed the bombs. The troops believed all the Germans were dead.

But it was not the case. They sat in their unspoiled positions looking directly down on the invading forces. But they did nothing… Until Sears' Higgins boat hit a sandbank and lowered the ramp:

"All hell poured loose on us. The soldiers in the boats received a hail of machine-gun bullets. The Army lieutenant had immediately been killed, shot through the head."

Many soldiers never even made it into the water, but like Sears' lieutenant were shot before they had left the boats. On one of the boats every soldier died without a single one disembarking.

The sea off Omaha Beach was packed with a variety of ships. Hundreds of soldiers in the first wave struggled to get through the water and onto land. Some couldn't swim while others were weighed down by their equipment. Many drowned before they reached the shore. The invasion had barely begun yet it had already gone wrong: only one company, A-Company, had reached the beach. The current and the wind had pushed the rest of the boats off course and instead of being scattered across the beach like a fan; soldiers were clustered together, making them even easier targets for the German machine guns.

Snipers were the Germans' most effective weapon – their infantry and artillery were quickly taken out.

Sergeant Thomas Valance tried to follow his training – to run forward, ducking and firing as he went.

"I saw some tracers coming from a concrete emplacement which, to me, looked mammoth… I shot at it but there was no way I was going to knock out a German concrete emplacement with a .30-calibre (7.62-mm) rifle."

All around Valance, bullets whipped into the sea. The men around him fell one by one. He fought his way through water and sand as he threw off his heavy equipment. The beach was an inferno, there was fire everywhere. Any incapacitated soldiers drowned in the incoming tide, as the water rose by several centimetres per minute. Some turned back to help the wounded, but they were hit too. Valance stumbled and, raising his arm for balance, was shot through the palm and then knuckle of his hand. Private Henry Witt rolled over to him and said:



Hand grenades were critical for clearing German bunkers.

"Sergeant, they're leaving us here to die like rats. Just die like rats".

But Valance fought on despite his wounds. Up on the beach, he crawled forward against a barrage of gun fire and mortars, searching for cover.

It was not even 07.00 and it was already abundantly clear that the invasion of Omaha was failing.

Engineers cleared Juno Beach

At about the same time, Sapper Josh Honan stood on a ship off the beach codenamed Juno. Here the landings would start a little later than those on Omaha.

Honan had worked for a mining company in Canada. One day a colonel came to visit and had asked for a chat. The Canadian Army only recruited volunteers but went to a lot of trouble to enlist them.

At first Honan had resisted the overtures, but the colonel was persistent and eventually the sapper gave in and joined up. Now he found himself on his LST (Landing Ship, Tank) off the French coast, hoping his demolition team would be forgotten in the rush. But not so. Someone shouted over the public address system: "Sapper assault team, report to your boat stations on number six deck, NOW!"

Soon Honan was circling around in the water in the landing craft. The underwater demolition team (UDT) had one of the most sensitive tasks: they went in before the first wave of soldiers and blew up German obstacles: mines, two-metre-high Czech Hedgehogs and Belgian Gates (both tank barricades made from steel) and mined wooden posts which were spread out over the beach and in the water. Honan's boat suddenly found itself on top of an obstacle. Right next to the boat was a mine – push from a wave and the mine would explode. Honan's commander, Major Stone, exclaimed: "I'm going over!"

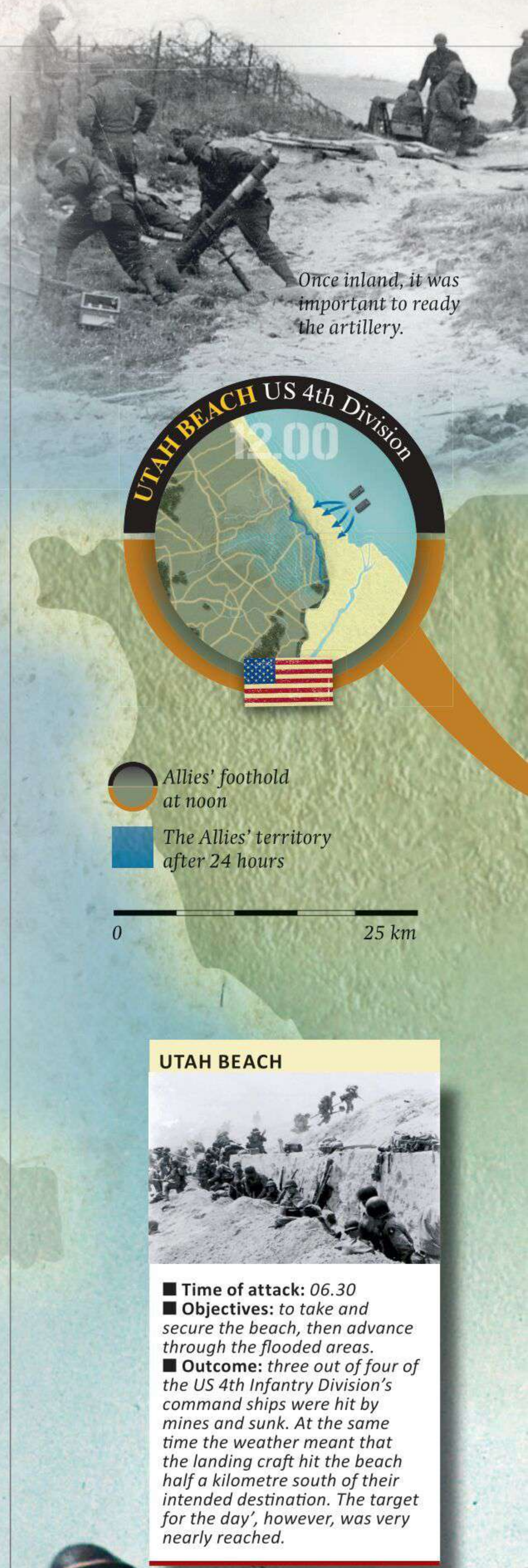
Honan's orders were to keep Stone alive, so he followed him.

"I swam to the front and the obstacle was wired onto two adjacent tetrahedrons and the major had cutting pliers and he said, 'I'll cut the wires,' and I said, 'Okay, I'll take out the detonators'.".

Eventually the boat came through, followed at 08.00 by the first wave of soldiers who streamed out of the ramps and onto the beach. All around Honan, bullets rained over the water as he moved from one obstacle to the next and the tide was coming in more quickly than Honan could keep pace with. At 08.15, he thought: "Bugger this lark, I'm going ashore."

Honan waded through the water onto the beach and up to the seawall. Some of the men pulled him up and handed him a bottle of whisky, but Honan declined.

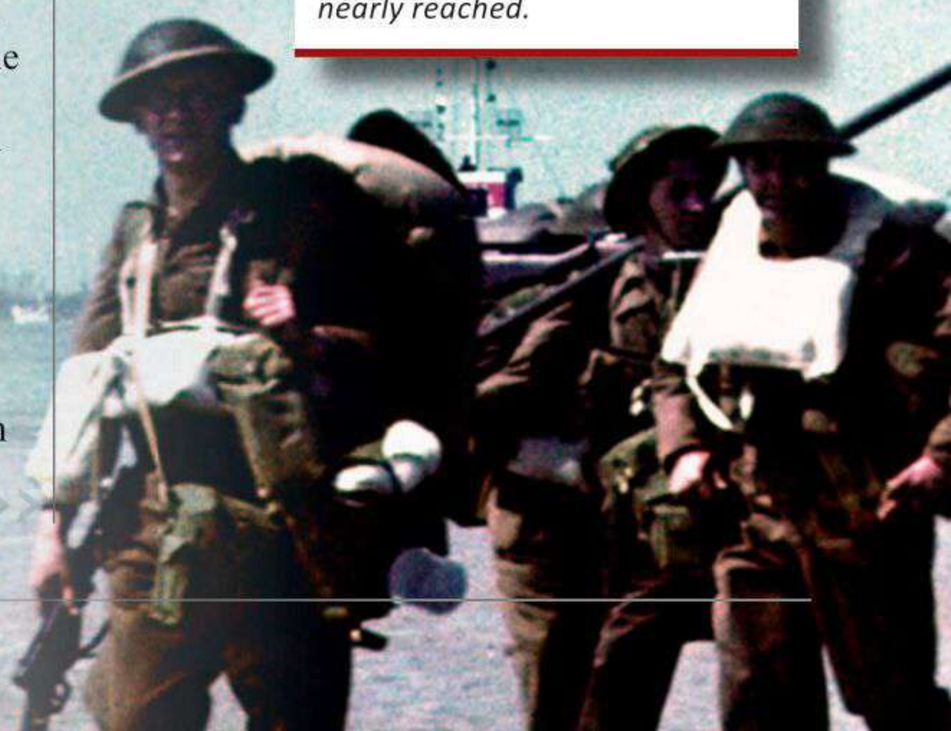
"Why not?" asked one of the soldiers on the seawall next to him. "You're not an 'effin teetotaller are you?"



Once inland, it was important to ready the artillery.

UTAH BEACH

■ **Time of attack:** *06.30*
■ **Objectives:** *to take and secure the beach, then advance through the flooded areas.*
■ **Outcome:** *three out of four of the US 4th Infantry Division's command ships were hit by mines and sunk. At the same time the weather meant that the landing craft hit the beach half a kilometre south of their intended destination. The target for the day', however, was very nearly reached.*

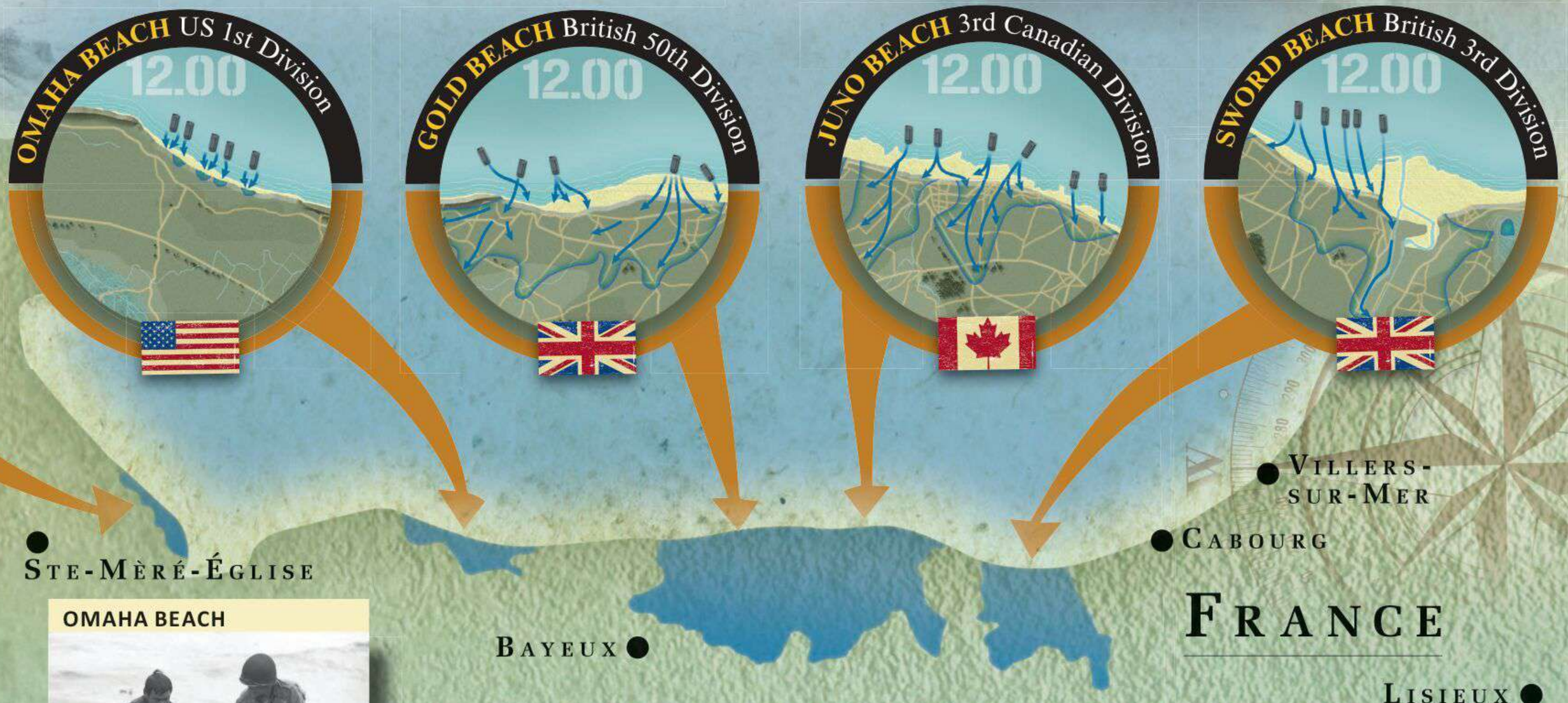


FIVE ATTACKS HAD AN IMPACT

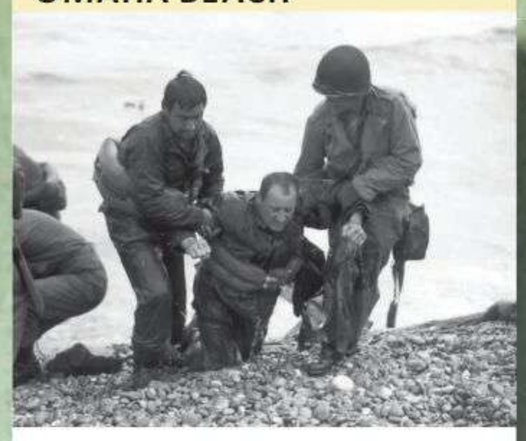


As day dawned on 6th June, 1944, the Allies sent in five coordinated invasions against German defences along the Normandy beaches. Each attack had its own specific objective, and none were met completely. As darkness fell, 150,000 Allied soldiers had landed with vehicles and weapons.

Canadian soldiers took part in the invasion of Juno Beach.



OMAHA BEACH



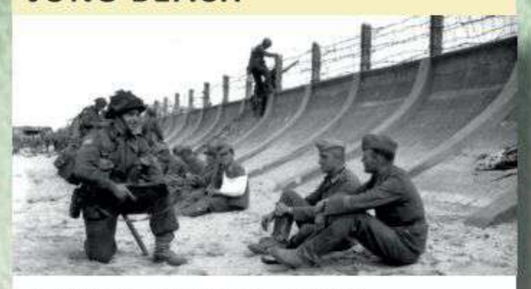
■ **Time of attack:** *06.30*
■ **Objectives:** *to occupy the villages of Colleville, St. Laurent and Vierville and take out the tricky German battery at Pointe-du-Hoc.*
■ **Outcome:** *the Allies underestimated Hitler's defences at Omaha, which was fortified with barbed wire, mines and a host of machine gun emplacements. The preliminary bombardment of the coast failed. The number of dead and wounded was huge in the first assault, but by the end of the day the Allies gained a foothold on the beach.*

GOLD BEACH



■ **Time of attack:** *07.25*
■ **Objectives:** *capture Bayeux, cross the main N-13 road, and take both the port of Arromanches and the German battery at Longues-sur-Mer.*
■ **Outcome:** *German artillery and infantry were destroyed before the landing, and British captured the beach and advanced 10 km inland. They did not meet the day's targets.*

JUNO BEACH



■ **Time of attack:** *07.45*
■ **Objectives:** *to take the beach, move inland and cut off the main road between Bayeux and Caen.*
■ **Outcome:** *German defences were weak and outnumbered six to one, but Canadian forces suffered heavy losses in the first assault wave. During the day they advanced further inland than any other division. They did not, however, meet their optimistic targets.*

SWORD BEACH



■ **Time of attack:** *07.45*
■ **Objectives:** *to invade the beach, continue through Ouistreham and capture both Caen and the airfield at Carpiquet.*
■ **Outcome:** *the British received support from the air, but were hindered by guns, mines and anti-tank defences. At the end of the day both Caen and the airfield remained in German hands.*

German defence lines at Juno Beach were quickly overrun and the second attack wave moved swiftly inland.

“We lay there and we got butchered by rocket fire”

“No, but I am afraid that stuff will make me feel brave or some bloody thing like that,” replied Honan.

Fresh officers gave new courage

On Omaha Beach, the situation remained critical – despite the fact a second wave of soldiers had come to assist the first wave by 07.00. The remains of the first wave – Companies A, F, G and E – were huddled against a bank of shingle next to the seawall, which provided some protection. The soldiers were tired and afraid, most of their weapons rendered useless by the sea water.

The soldiers in the second wave had a shock when the ramps were lowered and they saw the chaos unfolding in front of them.

They were supposed to have reinforced the first wave, which by now should have been moving through the exits to the beach to reach the top of the cliffs at the end of the beach within half an hour. But the soldiers couldn’t get over the initial obstacle and everywhere – in the water and on the beach – lay dead and wounded soldiers.

“It was simple fear that stopped us at that shingle”, said Private Carl Weast.

Many of the first and second wave commanders had been killed, leaving no one to give orders.

“We lay there and we got butchered by rocket fire and mortars for no damn reason other than the fact that there was nobody there to lead us off the goddamn beach,” Weast recalled.

20,000 men and 1,700 vehicles came ashore over 15 hours onto Utah Beach.

At 07.30 new commanders arrived with large numbers of US soldiers. Finally, the Germans could no longer easily concentrate their fire. Finally the tasks assigned to the first wave could now be attempted. US solders now advanced across the beach. When Brigadier General Norman Cota from the 29th Infantry Division fought his way to the seawall, he did so from the front. He encouraged his men to climb the seawall and place an explosive charge, so it could blast a way through the barbed wire.

Once the hole was made, he was one of the first men to go through. Other officers and soldiers soon followed Cota’s example.

Sergeant William Lewis had sat shaking with terror as a lieutenant named Leo Van de Voort spoke to them again:

“He said, ‘Let’s go, goddamn. There ain’t no use us staying here; we’re all going to get killed’. The first thing he did was to run up to a gun emplacement and throw a grenade in the embrasure. He returned with five or six prisoners. So then we thought, hell, if he can do that, why can’t we. That’s how we got off the beach.”

Bikes on Sword Beach

At Sword beach, about 45 kilometres further east, Corporal Peter Masters had a bicycle with him when he landed. Bikes would allow him and the other soldiers to move more quickly as they advanced inland. But right now it was almost a burden. Masters’ commando unit had orders to move as far inland as swiftly as possible, leaving them no time to wait for a route to be cleared through the minefields. Instead, they moved across battlefields where others were in the middle of fighting.

Masters was a Jew from Vienna. He spoke several languages and, on several occasions, had to interpret when his unit – Number 3 Troop, No 10 (Inter-Allied) Commando – needed to talk to prisoners of war.

As No 3 Troop moved further inland, the roads progressively improved until eventually the way became paved. The soldiers climbed on their bikes and rolled on through the countryside. On approaching a bombed-out village, they saw that all the cows in the fields were either dead or agitated. When the cycling commandos reached the river, they were suddenly fired upon by machine guns. One of the soldiers died while sitting on his bike. The others threw themselves to the ground.

Captain Robinson asked Masters to go down to the nearby village – alone – so the captain could assess where the shots had come from. He remembered a movie he had once seen with Cary Grant, and how Grant had gone up to the enemy alone and said, “You’re all under arrest!”

So Masters went down towards the village as he shouted in German:

“Everybody out! Come out! You are totally surrounded! Give yourselves up! The war is over for you!”

None of the Germans responded.

Eventually one man jumped out in front of him. Masters went down on one knee.



The first attack wave suffered brutal losses. Many drowned en route to shore or were killed on the beaches.



Folding bikes helped soldiers to rapidly advance.



The German fired his gun, but missed. Masters fired a shot, but then his Tommy gun jarred. Finally, Captain Robinson gave the order to attack. Masters was still on his knees when the other British soldiers stormed past. A British corporal with a machine gun injured two German soldiers and chased them from their position. One was a 15-year-old boy.

"How do you say 'I'm sorry' in German?"" the corporal asked Masters.

"Es tut mir leid".

Men were stuck on Omaha

On Omaha, the mood was close to desperate. It was 08.30, and on the narrow beach those vehicles that had come ashore and hadn't been destroyed or disabled, sat in one long traffic jam.

They couldn't move off the beach because the Germans guarded the road and fired on them from positions further inland. The incoming tide left a narrow strip of beach that was impossible to manoeuvre and as the vehicles were packed so tightly the Germans did not even have to aim to score direct hits. The 7th Naval Beach Battalion commander took the decision to suspend landings and pull back the ships delivering vehicles to the beach. The soldiers who were on land watched the ships – and their reinforcements – sail away.

The invasion on Omaha had been left almost entirely to the infantry. The ground was full of mines and the Americans moved cautiously forward in single file along paths marked with white tape. Along the paths lay the dead and wounded who had paid the price to show the way.

According to the plan, all exits from Omaha Beach had to be secured and already filled with Allied vehicles heading inland by 07.30. But as the clock neared 09.00, only around 600 men had broken through the first line of the German defence and reached the clifftop. From here they could see the chaotic and disastrous battle unfolding on the beach and, when they turned inland, the undisturbed, elongated fields bordered by shrubs and hedgerows, behind which Germans with machine guns hid.

Private Weast stood on the top of the dune and wondered where the air forces had bombed:

"Hell, I didn't see a bomb crater nowhere! Nowhere did I see a bomb crater".

Gold Beach went as planned

On Gold beach 20 kilometres east, the situation was radically different. As soon as the British forces landed, everything went like clockwork. For Seaman Ronald Seaborne the biggest problem during the morning's landing was seasickness caused by a combination of bad weather and a heavy breakfast of fried eggs and rum.

Seaborne was a forward observer for *HMS Belfast* and together with his party, was tasked with transmitting coordinates to the cruiser, so her guns could target German positions inland. The group's commander, a Royal Artillery captain, ordered Seaborne to message *Belfast* once the beachhead was secured. The group continued inland, but when Seaborne was unable to raise the ship, he continued inland to meet up with his unit.

"Before long I came to a small church. After halfway through the graveyard a shot whistled past me."

Seaborne threw himself down and crawled behind a tombstone. He saw a German helmet ahead of him.

"I fired back and for the next few minutes it was real cowboys and Indians stuff. With the last of my ammunition, I got a lucky ricochet on my enemy, who slumped from his hiding place into my full view. I went over and looked at him and found I was gazing at a young boy, presumably one of the Hitler Jugend. I felt sick – even sicker than I had done on the LCM an hour or so previously."

Seaborne reached his party as the infantry arrived at the front. They were stopped in their tracks when a German



Soldiers wore a metal ID tag around their neck. The information was important for treating the wounded and identifying the dead.

BEACH LANDING STATISTICS

THREE STEPS TO ENSURE VICTORY

The Allies developed detailed, unique plans for each of the five invasions. But roughly speaking, the landings on all the beaches followed three phases.

1 ***First phase was a violent bombardment from ships and aircraft, designed to destroy German positions and blow holes in the beaches where soldiers could seek shelter from German bullets. The bombardment had varying degrees of success on different beaches – Omaha was a failure.***



2 ***After the bombardment the infantry – supported by tanks – disembarked, waded ashore and climbed the beaches to capture German positions near the coast.***



3 ***As infantry companies advanced inland, tanks, artillery, truck and large forces disembarked to provide enough firepower to take the areas immediately above the beach, plus they advance further inland to capture cities, ports and strategic hubs.***



> "Looking down we saw a German half-track enter the square and park below our tree."

tank shot at them. *HMS Belfast* would have a good chance of hitting the tank, if the observer team provided the correct coordinates. But the infantry commander wouldn't hear of it – he said that his men were too close. And he would not have them withdraw.

"It is no use just keeping up with the troops, if we are to do anything useful, we must be ahead – then we can bring *Belfast* into play without risk to our side." said Seaborne's captain.

Shortly after noon the group crossed the main road, the N-13.

"We found a truly rustic setting – a village green, a café, a tall tree in the middle of the green, and two or three benches on the grass. Everything was very quiet and very still", remembered Seaborne. He climbed up into one of the trees in the square to get an overview of the area.

"Suddenly below us, we heard a rumble. Looking down we saw a German half-track enter the square and park below our tree".

The German soldiers got out and walked over to the tree where Seaborne and his team clung to the branches. The Germans relieved themselves against the tree and climbed back into their vehicle.

"We hoped that was the only reason for the stop, but to our dismay the half-track did not move. Ten minutes later another half-track lumbered into the square, quickly followed by a third."

Up in the tree the captain whispered that they should send a message to *Belfast* to say they were cut off. But the sound of Morse code would be intercepted by the Germans and they would all be shot. Seaborne saw the folly and refused to follow the order.

When the Germans finally drove off in two of the vehicles, they left the third behind. Together, Seaborne and the telegrapher managed to start the vehicle.

"We charged back over the N-13 and down the lane towards Cruelly. Near this village we stopped and got out. I reported back to *Belfast* and soon after we made contact once more with our own troops."



The Canadian soldiers were given Sweet Caporal cigarettes.

A BLESSING IN DISGUISE

The rapid advance of troops on Gold Beach was successful. On Utah Beach, the westernmost invasion point, the landing had gone awry before anyone had even set foot on French sand. They knew the map, so the soldiers should have been able to recognise the coastline and see that it didn't match. They'd selected the wrong beach. As with Omaha Beach, the tide had come in and strong currents had pushed the vessels off course to the south. Navigation was further hampered by smoke and wind.

Mines had sunk three out of the four LCCs (Landing Craft, Control) command ships together with their officers, leaving other landing craft to circle in a state of confusion shortly before the planned attack time of 06.30. Resolutely, lieutenants Howard Vander Beek and Sims Gauthier in the final LCC took command. Vander Beek picked up his megaphone, came up close to one of the circling vessels and shouted that they should follow him towards the beach – even if it was the wrong one. The attack finally began.

Three kilometres from the coast they disembarked with their cargo of so-called "Hobart's Funnies" entering the water – modified Sherman tanks fitted with a watertight canvas housing capable of floating the tank so it could sail into shore to support the infantry.

Vander Beek thought the vessels looked like "odd-shaped sea monsters with their huge, doughnut-like skirts for floatation wallowing through the heavy waves and struggling to keep in formation".

The floating tanks were as slow as they were strange. Higgins boats, carrying soldiers scheduled to arrive after the floating tanks, sailed right past and the attack had to be launched without any support. The misfortune of being blown off

course proved to be a stroke of luck, however. When the Americans landed, they came up against much weaker defences than those at the designated landing site. In addition, air strikes and the naval bombardment had the desired effect at Utah, unlike its negligible impact on Omaha and Juno. The Germans were largely sidelined.

Men and supplies came ashore

The biggest problem for 4th Division on Utah was not the beach in itself. Vehicles could come up from the beach and inland, but not very far. A junction inland had come under fierce fire from a German battery's four 155-mm guns at Saint-Marcouf and the advance had stalled. Colonel Russell "Red" Reeder went in with the 12th Infantry Regiment. He met General "Teddy" Roosevelt on top of a dune. Roosevelt had come in with the first wave of attacking soldiers and had a good overview of the situation.

"Red. The causeways leading inland are all clogged up. Look at it! A procession of jeeps and not a not a wheel turning," cried Roosevelt.

Reeder motioned for Lieutenant Colonel Charles "Chuck" Jackson. They would have to cross the flooded area. But what they thought was ankle-deep water turned out to be waist-deep and it stretched for two kilometres ahead of them.

Sergeant Clifford Sorensen was angry. "We waded and waded and waded. An occasional sniper shot would be fired and didn't hit anyone. We were mostly interested in keeping from drowning because the bottom was slick and the footing tricky."

Sorensen reached the beach where he had kept his head above water.

"I was so angry. The Navy had tried to drown me at the beach, and now the Army was trying to drown me in the flooded area. I was more mad at our side than I was at the Germans because the Germans hadn't done anything to me yet."



Inland, Allied soldiers had to fight from building to building through streets made virtually impassable by the Germans.

Once the battalion fought through the area, it split up. Jackson went towards Saint-Martin-de-Varreville. At a crossroads his men were forced to dive for cover to avoid German fire, when General Roosevelt rolled up beside them.

"Well, Chuck", said Roosevelt. "How are things going?" Jackson explained the situation and Roosevelt replied, "Let's go up to the front".

"We are at the front," replied Jackson and pointed out two soldiers. "They are the leading scouts of Company A".

"Let's go talk to them," said Roosevelt. It worked. The scouts marched, and the rest of the battalion followed. When they camped for the night, they had not quite reached their D-Day objectives, but they were close and after 15 hours on Utah beach, the Americans had over 20,000 men and 1,700 vehicles on French soil.

It was far more than anyone in their wildest dreams could have imagined – to land so many soldiers on a single beach in the space of just one day.

Finally the route was open

Back on Omaha Beach, wave after wave of Allies landed on shore. Finally, at 13.00 a route was opened from the beach inland. The UDT destroyed Rommel's Belgian Gates and tetrahedra while engineers blew up anti-tank barriers, filled in the anti-tank >>

Above Juno Beach a team of Canadian infantry set up anti-aircraft guns to combat the German Luftwaffe.

> “Troops were scattered in 18 isolated pockets around the three villages”

ditches and laid wire mesh on the sand for the vehicles to run on. The nearest defensive German positions had been silenced by fire from destroyers or by soldiers who had climbed the slopes behind enemy lines.

The gap, which the Americans called E-1, was open and ready by early afternoon, although driving up the hill was far from obstacle-free. Germans further inland quickly brought their heavy weapons to bear on the only roads away from the beach, and still held their ground at the junction of Saint-Laurent.

The Allies had opened a path away from the beach, but all of their vehicles were left standing in a long queue because they still couldn't move any further inland. It wasn't until late afternoon, at 17.00, that another route near Vierville-sur-Mer was opened and the vehicles which had been waiting could begin to roll away from the beach. Even then, the landing craft that continued to arrive continued to be subjected to a steady barrage of shells.



På Omahastranden mistede amerikanerne næsten 10 procent af invasionsstyrken. Ved D-Days slutning var 3.000 mænd enten døde, forsvundet eller såret.

Coast was cleared of mines

On the beach, men from the demolition team continued to work removing obstacles. In particular, they needed to clear as many mines as possible – it was critical to the invasion's success that more soldiers, vehicles, reinforcements and supplies could land over the coming days.

The Allies weren't the only ones to know this; the German snipers were aware, and they tried to get as many sappers in their sights to thwart their efforts. Their bullets pinged as they hit metal – the soldiers couldn't defend themselves, but had to duck, attach explosives, lay wires and blast – and then run on to the next mine in the hope that a sniper didn't hit them with his next shot.

Despite the ongoing barrage of shells, the bomb disposal teams succeeded in blasting away the mines to clear openings. When evening fell, there were 13 wide and accessible paths across the beach.

Although German positions were slowly cleared or destroyed, allowing boats to sail much closer to the coast and hit the enemy with more accuracy, the Germans did not retreat. Even in those areas the Americans believed to be secure, Germans sneaked back through a large, complex system of hidden passages and trenches. Yet, before long, the battle turned again. The Allied air forces had cut the German supply routes leaving the Germans to fight with what ammunition remained – and these supplies were running low.

General went ashore

As evening approached, the military brass landed on the beach. The signal was clear: with so many high-ranking men on Omaha, the battle was won.

The man who led the US attack on Omaha, General Gerow, landed at around 21.00. HQ Company had already erected tents just north of the village of Saint-Laurent and set up a command post.

Gerow's headquarters was only half a kilometre from the front line. The Americans were supposed to have pushed much further inland – all the way to the main route to Bayeux. But because of all the difficulties – German resistance much fiercer than the Allies had expected, the air force's failure to target Omaha and the ongoing chaos that followed – US solders were not nearly as far advanced as had been expected.

Troops were scattered in 18 isolated pockets around the three villages of Vierville-sur-Mer, Saint-Laurent and Colleville. None of them had heavy artillery and they had little opportunity to contact each other either.

Poor communication was one of Gerow's biggest concerns. A German counteroffensive was expected, but there had been no contact with the British 50th Infantry Division to the east or the US VII Corps, which had invaded Utah Beach. There was also no way to call for help if the Germans counterattacked.

Soldiers dug into the night

As darkness fell, soldiers dug foxholes on the beach, in the dunes and across the flat terrain, with little protection for the night. It was an uncertain time not knowing what would happen next. Now and then they heard shots, but otherwise it was quiet after a day in which the soldiers had not been able to hear their commanders' orders from just a few metres away. Lieutenant Henry Seitzler was an advanced observer for the US Ninth Air Force and all

TECHNOLOGY | CULTURE | ECONOMY | EVERYDAY



Soldiers fought in black and white

In the early 1940s, the US Army was divided along racial lines. At Omaha Beach there was only a single battalion of black soldiers. On Utah Beach 1,200 black soldiers landed on D-Day. Almost all of them were truck drivers or dockers. It wasn't until December 1944 that Eisenhower allowed African Americans to fight as infantry, but as they couldn't serve with white soldiers, they were placed in segregated divisions led by white officers.

day soldiers had teased or heckled him mercilessly because the USAF had neither bombed nor strafed any of the German positions that morning.

"Of course, I had nothing to do with this; they just wanted to needle somebody". By nightfall, some soldiers took him under their wing and together they broke into the galley of a burned-out landing craft. There, they found chicken, turkey and ham, which they could eat for dinner. Several of them had not had any food since breakfast, which seemed an eternity ago.

When the soldiers had finished eating, they went back to the seawall, where they had been digging holes throughout the night as a defence against German positions and the snipers who they knew were not far away. With wood scavenged from the burnt out houses, they lit a fire and made themselves each a cup of Nescafé. It turned out to be a bad decision for Lieutenant Seitzler, as the coffee had a diuretic effect on him.

"If I made any noise or anything, I could very well get shot. All I could do was get up, ease up on the edge of my foxhole, roll over a couple of times, use an old tin can to do my business, throw it away and roll back, very slowly and quietly."

After this incident, Seitzler swore that he would never drink Nescafé again.



British soldiers were armed with light machine guns.

Bridgeheads established

Inland, Charles Ryan had a specific enemy to deal with. He was a lieutenant in the US 1st Division's 18th Infantry Regiment, 1st Battalion and early in the evening his unit – Company A – reached the coastal road where they took up defensive positions ready for the Germans where they waited in anticipation. They were keenly aware the Germans were close and would make a counterattack, so they had to be ready to fire again.

"That night we were subject to continuous machine-gun and rifle fire."

Ryan's company fought back valiantly, and eventually they succeeded in establishing a beachhead. The US 1st Infantry Division had penetrated inland. "The Sixth of June, 1944, was an exhausting day, a frightening day, an exhilarating day, a sorrowful day, and a joyous day," Ryan recalled. "It was a day when the men in the 1st Division lived up to the division motto, 'No mission too difficult, no sacrifice too great. Duty first'.". ■



A dead German soldier in front of a bunker on Utah Beach. At first the gun emplacements gave the Germans an advantage, but the steady flow of Allied troops eventually proved superior.


AF

UNUSUAL WAR MACHINES

1940-1944

Past military failures had taught the Allies that a large-scale amphibious invasion required specialist equipment. Prior to Operation Overlord, Allied commanders tasked a shrewd businessman who'd previously helped smugglers in Cuba and a creative major general with developing new, groundbreaking war machines for D-Day. On 6th June, 1944, the unique inventions helped the Allies land in Normandy. Tanks that could lay reinforced paths, belch fire or sail like ships were just part of the arsenal. Meanwhile, silent wooden planes floated 10 kilometres above.

1940-1944

1940 The British develop gliders for the RAF.

1940 Inventor exhibits a floating tank.

1942 The Dieppe tragedy reveals the need for specialist equipment for D-Day.

1943 The 79th Armoured Division is formed to develop specialist tanks.

1944 The Glider Pilot Regiment captures key bridges in France.

1944 Percy Hobart's tanks go into action on the Normandy beaches.

1940 >>> 1942 >>> 1943 >>> 1944 >>>



Single-minded businessman Andrew Higgins spotted an opportunity when the Allies came calling for custom-built landing vessels.

Shady businessman Andrew Higgins was a strange choice for US national hero. Nevertheless, his smart mind and creative business ideas gave him a deserved place among the great heroes who made D-Day a success.

The stocky and hardboiled Higgins with his heavy eyebrows and permanently enigmatic smile had tested the boundaries of law and order from childhood. He'd been expelled from school for causing trouble and was later bankrupted by his timber firm before he struck gold as a boat builder in New Orleans. Rumours claimed not all his wealth was legally earned. Higgins had, for example, sold fast boats to smugglers carrying Cuban rum during the 1920s, so they could outrun the authorities. He then promptly offered to supply the coast guard with even faster boats.

In 1941, he gave the US Army an offer it couldn't refuse for the upcoming invasions of occupied territories in the Pacific and Europe. It was for a fleet of vessels that, with an effective landing ramp, could quickly bring Allied troops ashore and away from enemy fire. The result was the LCVP (Landing Craft, Vehicle, Personnel), better known as the Higgins boat.

Specialist equipment for invasions

The landing vessel was not the only war machine that was designed specifically for the invasion of Normandy. An unsuccessful attack on the French coastal town of Dieppe in 1942, under the cheerful title of Operation Jubilee, ended in a bloodbath, teaching the Allies a harsh lesson that a large-scale amphibious invasion required specialist equipment to succeed.

At Dieppe, many of the soldiers in the landing vessels had been shot before they'd even disembarked. The men were crammed like fish in a barrel into the boats and, unable to move, were easy targets for the German guns. Others were hit while trying to swim to land or drowned, weighed down by their weapons, ammunitions and uniform. The lucky ones who reached shore had to cut through barbed wire barriers, while slabs of concrete also blocked the tanks' path. The troops were unable to communicate as most radio operators, their easily recognisable antennae swaying over their heads, had been killed en route. Most Allied tanks also failed to make it to the



When the ramp was lowered on the Higgins boats, soldiers could jump out onto the beach quickly.

city's seafront promenade, either getting stuck on the landing ramps or in the German barbed wire. One tank drove off the ramp too early and ended up at the bottom of the sea. When the operation's commander – after half-a-day's fighting – finally ordered a withdrawal, over half of the approximately 6,000 soldiers were either dead or captured.

Inspired by the Mississippi

One lesson learned from the failed operation in Dieppe was the need to get the soldiers out of the landing vessels quickly. When the troops clambered over the boat's sides, most had been shot down on the spot.

The navy needed a flat-bottomed vessel that could circumvent the Germans' so-called *Rommelspargel* (Rommel's Asparagus), which were mines set on wooden logs driven into the seabed that were hidden at high tide. The boat also needed to be able to sail close to the beach and deposit its personnel and equipment in a hurry. It was Andrew Higgins' big break. After the abolition of prohibition in 1933, the wily builder was desperate for new sources of income and had already developed a boat called Eureka, which met the US Navy's requirements when World War II broke out.

The boat had been built to sail on the Mississippi River. With its flat-bottomed hull it could skate over driftwood and through mangroves. The rudder and propeller sat partially enclosed in the lower part of the hull to protect them against submerged obstacles.

The navy was initially resistant to Higgins' overtures, but he chipped away while throwing himself into a large-scale advertising campaign with shows where a skipper demonstrated the boat's strength and manoeuvrability by running its bow up against jetty and harbour edges. Eventually, the navy handed the enthusiastic boat builder his opportunity with the added requirement that he should deliver a waterproof and bulletproof ramp for the boat – within 72 hours.

23,398
boats were manufactured by Higgins for the Allies during the war.

Higgins slammed his office doors shut and ordered his employees that they should all stay at their desks until a solution had been found. One employee had a cigar box lying in his drawer and it proved the inspiration for the vessel they designed. The solution was simple: a ramp on hinges that in one single movement could transform the boat's flat bow into a solid steel gangway. The solid ramp was attached to the ship's side with two chains.

The only disadvantage of the Higgins boat was that the almost flat bottom meant an uncomfortable voyage.

"Relief at being off that damned landing craft is what I mostly remember," said Captain Ian Hammerton on the trip to the French coast on D-Day. "I had been violently seasick all the way across."

Coxswain Marvin Perrett, who drove one of the LCVPs, hadn't been seasick, but recalled how the person standing in front of him succumbed to the constant rolling: "The poor guy was seasick… He just stuck his head out over the side of the boat… it was the windward side and I caught it all in the face."

Despite all of the discomfort, Higgins' invention was crucial to the Allies' success at Normandy.

"Andrew Higgins is the man who won the war for us," Allied Supreme Commander Dwight D Eisenhower stated in 1964. "If Higgins had not designed and built those LCVPs, we never could have landed over an open beach. The whole strategy of the war would have been different."

Tanks could sail ashore

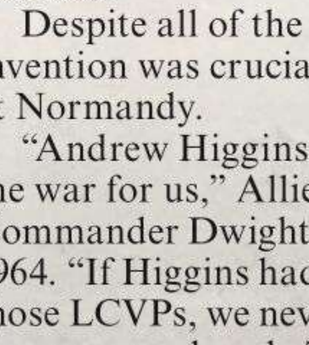
A series of close-range German artillery positions on the beach awaited after landing. In Dieppe, many tanks had sunk or got caught in the surf before being blasted to bits. To avoid repeating that scenario, the Allies worked on developing a tank that could sail on to the beach. The idea of a floating tank wasn't new but had remained on the drawing board since World War I. Technology had, however, so far failed to make the idea a reality.

Long before D-Day, Hungarian-born Nicholas Straussler had struggled to

EYEWITNESS

FRANZ GOCKEL / German guard post at Omaha

LANDINGS IN NORMANDY



"At high tide there was a bigger landing boat, which had come after all the small ones. They only had 15-20 men, but this large one which landed right in front of us had about 200-300 men, and they had their exit on both sides, and stood bunched up… And one comrade… came crawling into my bunker, and shouted, 'Franz, beware, they are coming. Now you have to defend yourself.' And this is what we both did."



The 79th Armoured Division's insignia featured a black bull's head.

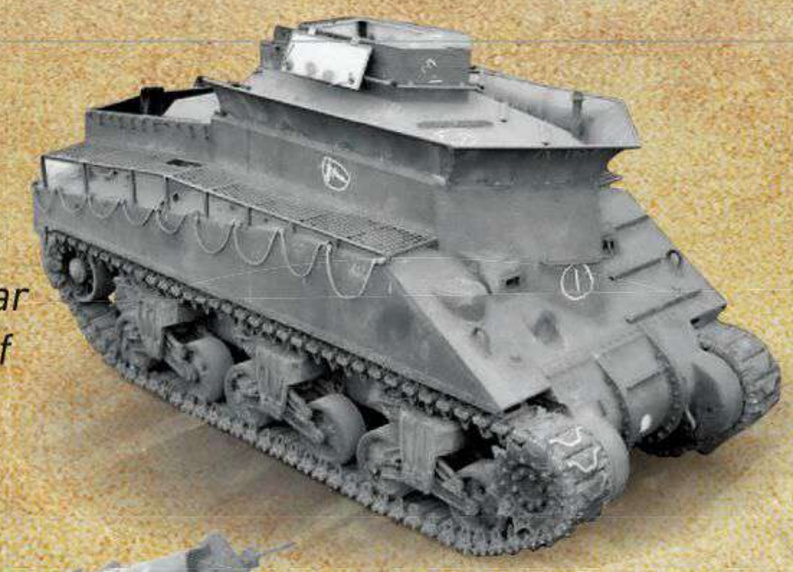
MONSTER TANKS

A spectacular operation like Overlord also required spectacular weapons. Major General Percy Hobart developed an arsenal of imaginative tanks that would each play their own role on Normandy's beaches.

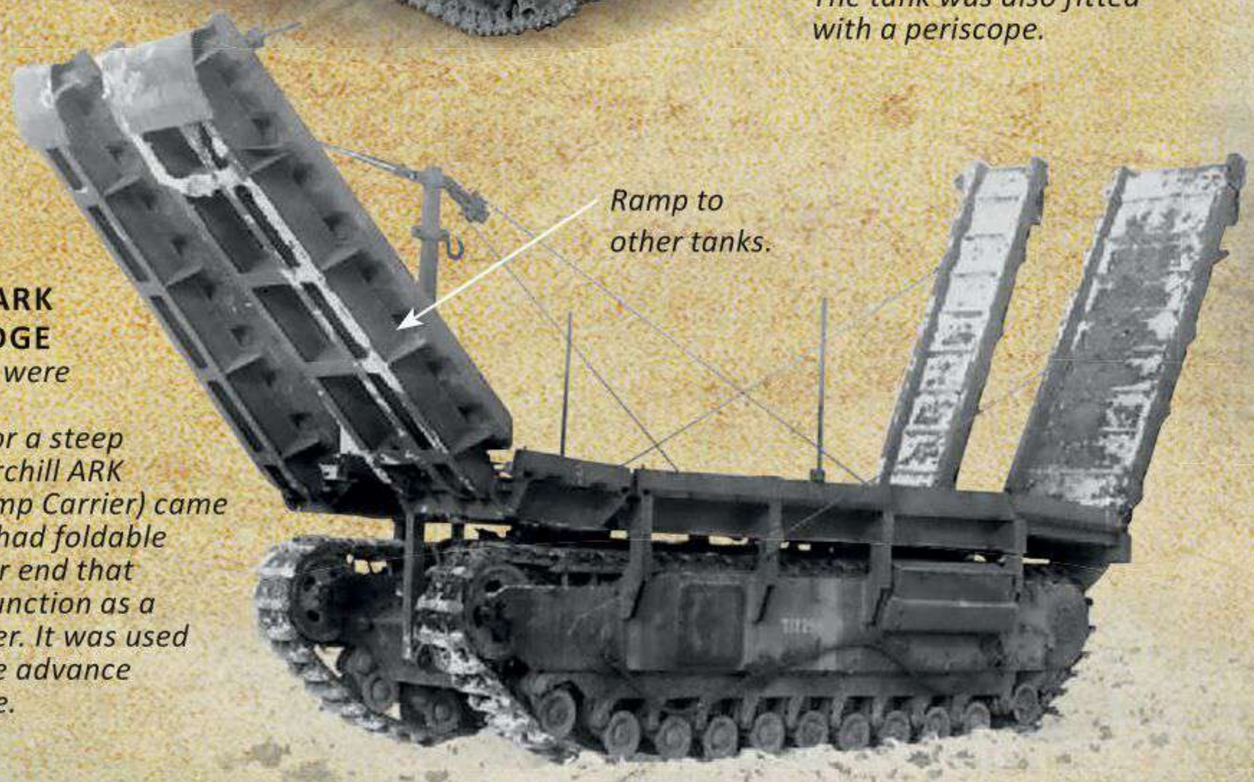


AVRES FILLED DITCHES WITH FASCINES
■ *To prevent tanks and other military vehicles from getting stuck in trenches or large bomb craters, Churchill AVREs were equipped to lay large bundles of wood across the holes.*

Bundles of poles and branches.



SHERMAN BARV RESCUED TANKS
■ *Allied beach armoured recovery vehicles (BARVs) were deployed when vehicles got stuck in the surf. Its Sherman chassis and waterproofed upper superstructure allowed the BARV to work on both land and sea. The tank was also fitted with a periscope.*



CHURCHILL ARK BUILT A BRIDGE
■ *When tanks were stopped by an embankment or a steep slope, the Churchill ARK (Armoured Ramp Carrier) came to their aid. It had foldable ramps at either end that allowed it to function as a bridge or ladder. It was used throughout the advance through France.*

Ramp to other tanks.

THE CROCODILE SPEWED FIRE
■ *The Churchill Crocodile tank could project a flame over 100 metres long at enemy positions. It was something of a fuel guzzler – the flame consumed 15 litres per second – and pulled a trailer with 1,800 litres of fuel.*



Several soldiers had already drowned during drills off the British coast when the tanks sank to the bottom. The biggest casualty was the British special forces 79th Armoured Division, led by military engineer and major general, Percy Hobart. In April 1943, six of the division's tanks sank during an exercise off the Dorset coast in South West England, drowning six soldiers in the process.

More drownings occurred on D-Day when US commanders took the fatal decision to launch the amphibious tanks eight kilometres from Omaha Beach. The fragile floatation screen wasn't designed to withstand open seas and 27 out of 29 tanks launched sank with tragic consequences. Historians argue that shipwrecks added to the bloodbath that followed on Omaha.

OLD ENGINEER RECALLED

After landing on the Normandy beaches, Allied solders and vehicles were tasked

>>> develop an amphibious tank – in other words, a tank that could also sail. He'd tried – for example – to mount collapsible pontoons on either side of the tanks and had succeeded in getting the heavy war machines to float. But each pontoon was the same width as the tank, making them far too wide to be transported on the landing vessels.

In 1940, the tenacious engineer finally presented the fruits of his labour: a tank with a floatation screen: a folding, inflatable rubberised canvas screen manufactured by Li-Lo that, when unfolded, created a two-metre-high hull. The canvas construction was inflated using compressed air and reinforced with rubber tubes and metal hoops. During its voyage, most of the tank remained below the waterline, so only the tub-like floatation screen and top of the tank were visible. In the water, the amphibious tanks were driven by propellers and could be steered using hydraulics from inside the tank or by rudder from the tower. The metal body was painted with pitch to protect it from salt water.

Once the tank reached shore, the crew simply deflated the floatation screen, folded it up and then rolled on up the beach, where the amphibious vehicle reverted to a regular 30-tonne tank.

However, Straussler's invention was vulnerable in heavy seas, where the canvas construction could collapse or puncture.



THE CRAB CLEARED MINES
■ *The so-called Sherman Crab was designed to clear hidden mines from beach sand. In front, the tank had a rotor with 43 chains mounted. When the chains swung, they ploughed into the sand and detonated the deadly mines. Chains had to be replaced after 14 exploded mines.*

BOBBINS PROVIDED SECURE FOUNDATIONS
■ *When an AVRE equipped with a 'Bobbin' advanced, it laid a thick canvas blanket on the ground. This created a more stable base for other military vehicles on the Normandy beaches, where they might otherwise easily sink into the soft sand.*

with passing through a defensive zone in the form of mines, barbed wire and concrete barricades. To avoid being caught on the beach like at Dieppe, Hobart's 79th Armoured Division was tasked with developing a series of vehicles that could penetrate the Germans' obstacles.

Hobart had served as an engineering soldier first in India, then in World War I before establishing the future 'Desert Rats', the 7th Armoured Division, in Egypt. He'd become preoccupied with tanks in World War I and insisted they were a way to avoid gruelling trench warfare. With a never-ending stream of quirky proposals for future tanks, the enthusiastic Hobart had ended up annoying his superiors to the extent he was forced to retire, aged 55, in 1940. However, British prime pinister Winston Churchill made sure the enthusiastic engineer was recalled and tasked him with leading the 79th Armoured Division, an experimental unit for developing, training and deploying soldiers for the new tanks.

5
specially trained soldiers typically manned each of the Hobart's Funnies tanks.

The 79th Division's engineering troops found themselves working for one of the army's most eccentric personalities. Ian Hammerton described his leather jacket, neckerchief wound around his neck like a scarf and thick black horn-rimmed glasses giving him a fierce expression. And the war machines developed by Hobart's engineers were no less unorthodox. They came to be known as "Hobart's Funnies".

MINE-CLEARING TANK CUT WIRE

To avoid another Dieppe situation, where slabs of concrete had blocked those few tanks that had reached the city, Hobart's division equipped one variation of their tanks, the AVRE (Assault Vehicle Royal Engineers) with a petard mortar – a metal container packed with explosives. It was nicknamed the "flying dustbin" and could smash concrete to pieces.

To clear the thousands of treacherous mines lying hidden under the sand, Hobart's engineers also developed a mine-clearing tank, the so-called Sherman Crab. They mounted a steel structure at the front of the vehicle with a rotor covered in metal chains, each with a ball on the end. When it rotated, the chains flailed the ground with a force so great that the balls plunged 20 centimetres beneath the surface, detonating any hidden mines. An added touch saw the rotor fitted with powerful cutters that could quickly and efficiently cut through any barbed wire barriers.

Yet another outstanding invention from Hobart's 79th Armoured Division was the Crocodile – a Churchill tank equipped with a flamethrower. The terrifying weapon could shoot a devastating stream of fire over 100 metres in front of it. The flamethrower consumed a full 15 litres of fuel per second, so the Crocodile was forced to draw a trailer with 1,800 litres of fuel behind it on the battlefield.

Hobart also presented his superiors with an AVRE – dubbed the Bobbin – that could roll thick canvas blankets onto the beach in front of it. The carpet created a more stable base over the soft sand for the Bobbin and any tanks that followed behind. Another tank, the Fascine, carried wooden poles or brushwood to drop into ditches and holes in the road to allow other vehicles to cross.

During exercises, most tanks in the remarkable Hobart Funnies arsenal lived up to expectations, but some had to be scrapped. One example was the so-called CDL (Canal Defence Light) – a tank equipped with a powerful carbon-arc searchlight. Hobart's idea was that the light would blind the enemy, which it did. But in turn, the light also put the tank and its crew in sharp relief – making them an easy target for German gunners.

AMERICANS REJECTED TANKS

US generals were also offered the British 79th Armoured Division's inventions to augment their forces, but politely declined the offer. They regarded Hobart as an eccentric, and many even thought that his distinctive arsenal made fun of the reliable Sherman tanks that the US war industry worked hard to produce. That >>



The inventive Percy Hobart was tasked with developing specialist tanks.



British soldiers were hastily trained as glider pilots prior to Operation Tonga, which aimed to land soldiers in France.



Around 250 engineless Horsa gliders were towed to France behind bombers on D-Day. They would release themselves near the target to glide in silently.

attitude backfired on D-Day, when the Americans suffered far greater losses than the British. Mines and gunfire stopped the US troops, while Hobart's Funnies did their work on the British invasion beaches and helped the soldiers break through the German defensive barricades.

The tanks came up short in one regard, however. To continue the advance into France, Allied troops had to cross the bridges over the Orne River and the Caen Canal. The bridges were well-guarded and mined with dynamite. If German scouts spied enemy troops, all they needed to do was to press a button to blow up the bridges, and the Allies would be cut off. Other inventions were required to get the better of the Germans.



With a wrist compass, pilots could navigate in the dark.

Gliders were wooden

It was vital to sneak up on the Germans unnoticed and capture the crucial bridges during D-Day's first hours. The Allies therefore chose to send special forces into enemy territory using silent gliders.

The British had already developed Horsa gliders at the outset of the war – these weighed just under seven tonnes, thanks to their wooden hulls and wings. The 20-metre-long aircraft had a wingspan of 27 metres and space for 30 soldiers. Aside from the invasion of Sicily in July 1943, gliders hadn't been used in major Allied operations, so as D-Day approached, the RAF busied itself with training glider pilots. Some of the new recruits hadn't flown at all before. One such recruit was Staff Sergeant Geoff Barkway, who trained first in powered aircraft before transitioning to a glider.

"If someone came to me now and said you are going to take a wooden airplane without engines, fly it six miles in the dark and land in a field half the size of a football pitch, I would ask to be excused," he commented later.

The newly qualified pilot had good reason to be concerned. Sir Trafford Leigh-Mallory, Commander-in-Chief of the Allied Expeditionary Air Force, had worked out that there would be significant losses during the planning of Operation Tonga. He considered that 70 percent of gliders and half the men wouldn't survive the mission. It would be their final mission and for many, their only mission. These gloomy prospects were partly down to the Rommelspargel defences, which the Germans had hammered into the ground in long rows to surround the rivers. They made it difficult for any of the ordinary aircraft to land unharmed.

The Horsa's engineers knew all about the deadly wooden barricades and the devastation they could cause, however, and had designed the glider to crash land in the middle of the obstacles. The wings were mounted to easily tear off the plane, leaving the main body undamaged. The wings, however, would simply cushion a small amount of the impact as soon as they hit something.

"That was the beauty of a glider, you could smash them up and get out and brush off the bits and pieces! We always reckoned it was a good landing if you could walk away from it," Barkway said.

Pilots secured important bridges

The gliders had no engine, and so were towed across the English Channel by heavy bombers. The aircraft were connected to the bombers by wire.

With his eyes fixed on a drawn map and stopwatch, Barkway and his co-pilot Peter Boyle listened to the soldiers who, seated in the cabin behind, bawled out 'Roll Out the Barrel' and other popular soldier songs.

11 kilometres from the target, the gliders were released from the bombers and slid silently towards the wriggling river that lay far below them in the darkness. The soldiers fell silent as the sound of the bomber's powerful engines faded away.

Despite a crash landing – "we were landing rather fast" recalled co-pilot Boyle, while one of the soldiers said "my glider hit what can only be described as a snipe bog and then took off again" – the operation was successful. As planned, Allied troops quickly captured both decisive bridges.

On the coast, meanwhile, D-Day was soon in full swing, the decisive large-scale amphibious operation was underway and there was a hectic burst of activity both on land and in the water.

The Normandy beaches teemed with Allied soldiers and tanks – not least the Hobart's Funnies – all ready to take their part in the massive operation. Higgins boats delivered thousands of soldiers, on to the land and canvas-clad vessels were transformed into battle-ready steel monsters as they came ashore while Sherman Crabs wiped away the Germans' carefully placed minefields. Together, these exceptional war machines played an important part in the overall grand-scale invasion and helped to pave the way for the Allied forces to enter France and ultimately to defeat the Germans. ■

To reduce the threat from German bombers, the British scattered glider production around many factories.

TECHNOLOGY | CULTURE | ECONOMY | EVERYDAY



Beach sand hid Teller mines

The Germans mined the entire Atlantic coast with so-called Teller anti-tank mines. The deadly explosives were secreted in the beach sand or mounted on wooden poles in the water as "Rommel's asparagus". At the centre of the mine was a pressure plate that detonated the TNT explosive when it was subjected to a weight of over 100 kilograms or if it was lifted. The mines were designed to blow up ships and vehicles, not just individual soldiers.

Valentine tanks were fitted with waterproofed canvas floatation screens that transformed them into amphibious tanks.

> “Canvas-clad vessels were transformed into battle-ready steel monsters as they came ashore”

THE DAYS AFTER

1944

The day after the world's biggest landing operation, the Allies immediately set their sights on the invasion's next target: US, British and Canadian soldiers are to expand the bridgehead and occupy Normandy's key ports and fortified towns. But despite superior equipment and almost complete air supremacy, the Allies are forced to fight fiercely against resolute German panzer troops before they can strengthen their tenuous foothold on the European continent. Even then, the advance in Normandy doesn't always go according to plan.





1944

7th June The Allies start fighting to expand their bridgehead.

10th June Montgomery approaches Caen.

13th June Fierce tank battles at Villers-Bocage end with a British withdrawal.

29th June US troops occupy the key port of Cherbourg.

30th June Operation Epsom flops When 60,000 British troops fail to capture Caen.

1944

Something was wrong, but Lieutenant Waverly Wray couldn't put his finger on what it was. Dawn was just about to break at 05.10 on 7th June, 1944. Wray stared into the darkness as he tried to sense what he couldn't see. The US soldier stood on the outskirts of the village of Sainte-Mère-Église along with around 600 other lightly armed paratroopers. 28 hours ago, he'd hung by parachute in the air over Normandy's dark landscape as part of the vanguard for one of the most difficult and complicated military operations ever: the invasion of Normandy.

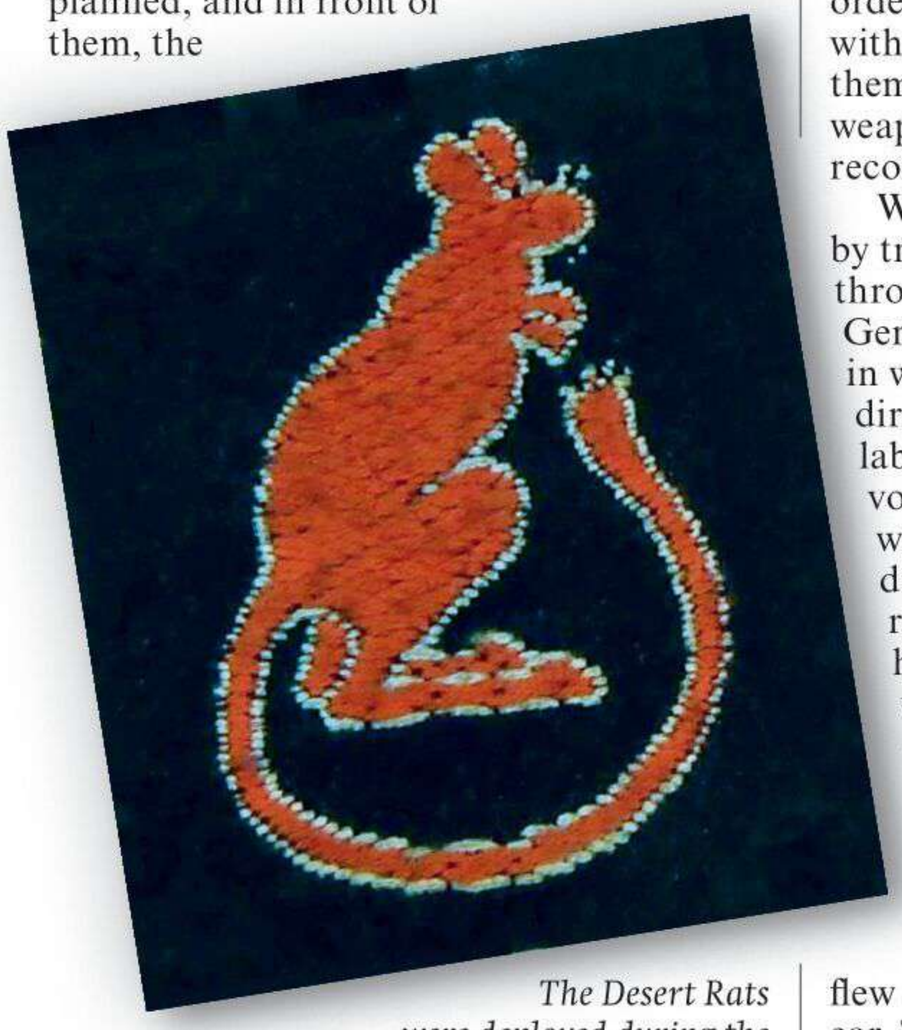
"Their road will be long and hard", said President Roosevelt with meaning in an evening prayer on 6th June.

Dawn in enemy territory

Over the following day that Wray had been in France, the Allies had put 175,000 men ashore and pushed the German soldiers away from the coast. Now, a day later, British, Canadian and American soldiers woke up along the Normandy coast after spending the night in self-dug foxholes or sitting on the ground back-to-back with their colleagues.

D-Day was already history. The soldiers had survived the capture of the beaches and helped establish a bridgehead; now it was time to expand it. The Allies hadn't penetrated as far inland on D-Day as planned, and in front of them, the Wehrmacht's mighty war machine was lying in wait.

There would be a German counteroffensive – everyone expected it. The Germans had to push the Allies back into the sea at all costs if they were to win the war. And this morning on the outskirts of Sainte-Mère-Église, Lieutenant Wray sensed that the counterattack was brewing right in front of him.



The Desert Rats were deployed during the fighting in Normandy.

Hugely outnumbered

Wray was right. 6,000 German soldiers were preparing to break through the Allied lines. Wray was no novice – he was a veteran of the fighting in Sicily and Italy, and his regimental commander Colonel Ben Vandervoort described him "as experienced and skilled as an infantry soldier can get and still be alive". He weighed 114 kg (250 lbs), with "legs like tree trunks" and hailed from Batesville, Mississippi. Wray was not your regular solider – as a Baptist he was a non-smoker, non-drinker and never swore. The paratrooper could hear the distant sound of soldiers and vehicles north of the village in the morning gloom and immediately reported to Vandervoort what he'd heard – and where he believed the enemy would attack. His commander listened, then ordered Wray to attack the German flank with his company. As the men prepared themselves, the Baptist picked up his weapons and left to perform his own reconnaissance and plan his attack.

Wray walked along sunken roads edged by trees and shrubs, and then passed through an orchard while he noted various German positions. He was used to moving in woodland, and his good sense of direction helped him navigate the labyrinthine hedges. Suddenly he heard voices from the other side of the hedge where he stood. It sounded like a discussion over map coordinates. Wray raised his weapon, burst through the hedge and yelled in German: "Hands up!" Seven of the eight German officers obeyed. The last one reached for his weapon, and Wray shot him. But then he himself was shot. 100 metres behind him lay a slit trench from where two German soldiers peppered him with machine gun bullets – one flew close enough to tear off half his right ear. The seven officers started to run, so Wray dropped to one knee, fired a single shot at each, killing them on the spot, and then turned around. With a new magazine fitted to his M1 Garand semi-automatic rifle, he then shot both German snipers – again with one shot through each's head.

The following day, Wray accompanied his commanders back to the spot to see who he had shot. During the night, the apple trees had sprinkled white blossom over the German officers' bodies. They were identified as the commander and staff of the 1st Battalion, 158th Grenadier Infantry Regiment. They should have been part of the vanguard as part of the German's planned counterattack, but which had ended in confusion, partly thanks to Lieutenant Wray's one-man mission.

Death came from the air

Already by dawn, as Wray was shooting the officers, both the Wehrmacht and Allies

American forces land on Omaha Beach in the days following D-Day before advancing into Normandy.

> “Wray raised his weapon, burst through the hedge and yelled in German: “Hands up!” ”

were in the process of sending reinforcements to the front. The Germans lacked the same level of planning as the Allies for deploying their forces, and both British and US air forces ensured the Germans couldn’t easily reach the front line. The rail network had been thoroughly bombed before the invasion, and those troops sent to the front by the Germans were so savagely attacked by aircraft that they could only move at night or when heavily camouflaged.

Days where there was rain, fog or dark clouds became the Germans’ favourites because they prevented air attacks. The Allies had effortlessly secured supremacy in the air, and the Luftwaffe rarely appeared. This gave the Allies a huge advantage: not only could they bomb German transports, they could also fly in supplies and deploy reconnaissance aircraft to direct their artillery. The Germans quickly learned to stop firing to avoid discovery when they saw a reconnaissance plane in the sky.

Sergeant Günter Behr was a radio operator with a German battery that had lost two guns to shelling. “As soon as we fired our guns, we had to run again, and look for a good place to hide,” he related. “We were hunted. Always afraid. If you could not run, it was over. Like eagles and rabbits.”

Germans clung to Caen

Despite their dominance in the air, the Allies didn’t move quickly enough. There were particular problems in the British sector. The invasion forces on Sword Beach were supposed to have captured Caen on D-Day itself but failed to do so.

“We can always take it tomorrow,” said British commanders. What they didn’t anticipate was that fighting for Caen would become a long and

drawn-out battle between the bulk of the German armoured forces and British and Canadian forces.

On the other hand, Bayeux was easily captured on the day after D-Day as the city had been largely evacuated in advance. Caen was strongly defended, however. The Allies tried take the city with a frontal assault, but even after a powerful naval bombardment, the Germans refused to budge. A British anti-tank division was captured when it was unable to ascertain its position due to the gun smoke. Their German captors proved both nonchalant and "elegant" and offered the prisoners milk or wine to drink. At that moment, shells from *HMS Warspite* started to fly overhead.

"I think we better dig a hole, don't you?" One German said to his prisoner, a British lieutenant. As the bombardment continued, they sat side-by-side in the trench, sharing pictures of their loved ones and cowering each time a shell flew past.

"You will be back in the sea in a few days," the German said.

"No, I am sorry," the lieutenant replied. "We will be in Paris in a week."

The battles for Normandy became intense and even merciless, with soldiers taking reprisals by shooting wounded enemies at close range. Others were ordered to avoid taking any prisoners.

Over the next few days – 7th-9th June – the Allies around Caen advanced village by village while the Germans fought back and constantly reinforced the front with armoured troops trying to prepare for a counterattack on the coast.



Allied tanks roar through the war-torn commune of La Délivrande, just 14 kilometres north of Caen.

COUNTERATTACK THWARTED

Neither side was able to force a breakthrough. Therefore, General Geyr von Schweppenburg, who commanded the German 5th Panzer Army on the Western Front, started planning a large-scale offensive against the Allies for dusk on 10th June. After personally witnessing the RAF bomb the "Hitlerjugend" panzer division sent to defend Caen, he and Field Marshal Erwin Rommel decided that the attack would take place at night.

But 16 British tanks suddenly broke through the German lines, and squadrons of British aircraft appeared in the sky and blasted Geyr's command post to pieces. He survived, but his chief-of-staff, virtually all the personnel in the command post and many officers died in the attack. Geyr was left shell-shocked and unable to resume his command for several weeks.

BRITISH STALLED

Instead of a large-scale counterattack, the Germans had to divide up their armoured troops to hold the front. But they remained strong enough to prevent the British taking Caen immediately. And the city was important: if the Allies didn't capture Caen, they couldn't extend the bridgehead, which was still so narrow there was little room in the British sector for airfields, workshops, camps, field hospitals and vehicles.

Moreover, it was increasingly problematic for the British to receive the many soldiers earmarked to land during the construction of the invasion force in Normandy.

The bridgehead had to be expanded around Caen, with the city now the military pivot on which the entire invasion could turn. Caen was a vitally strategic goal if the Allies were to continue to Paris. But Caen had developed into a stalemate, with the British fearing they wouldn't be able to win what had turned into a drawn-out struggle.

PORTS WERE VITAL

While the British and Canadians strove against the Wehrmacht's powerful armoured forces at Caen, those Americans on their western flank advanced towards the French port of Cherbourg on the Cotentin Peninsula. The port was extremely important for landing reinforcements and supplies. The Allied soldiers needed radio equipment and rations, Jeeps and ammunition, fuel and small arms, typewriters and forms. Without control of large ports like Cherbourg, the Allies couldn't scale up their efforts to help push their forces inland.

Hitler knew this too. What he hadn't anticipated, on the other

LIGHT AND MOBILE
The Sherman tank was built to support the infantry. It was light and could exploit breakthroughs.

M4 SHERMAN

■ The Sherman medium tank was the backbone of Allied armoured forces and over 50,000 were produced during the war. It was fast and mobile, but couldn't match the heavy German tanks on its own.

■ In July 1944, the Sherman was upgraded from a 75- to a 76-mm gun to improve its chances against the Germans. Nevertheless, it could only damage Tiger I tanks from the side or at close range.

Armament	76-mm gun
Ammunition	55 shells
Top speed	48 km/h
Armour	25-76 mm
Weight	30 tonnes
Crew	5 men
Operating range	190 km



MICHAEL WITTMANN *1914-1944*

PANZER ACE

■ German SS captain and tank commander Michael Wittmann enlisted in the German army at the age of 20 in 1934. By the time he transferred to Normandy in April 1944 he was already a celebrity because he'd destroyed 137 tanks on the Eastern Front. Wittmann was furious with the Allies because they'd bombed German cities, and he said to his soldiers: "We have only one watchword and that is 'revenge'!" He achieved retribution on 13th June in the Battle of Villers-Bocage, where in under 15 minutes his battalion destroyed around 13 tanks, several anti-tank guns and many armoured cars. His efforts saw him promoted to SS captain, but the title lasted only a few months until his death on 8th August, 1944. Wittman fell in battle near Saint-Aignan-de-Cramesnil when his tank was hit and destroyed, probably by a British Sherman tank.

Over 100 tank 'kills' on the Eastern Front – received Iron Cross from Hitler – died on the battlefield

hand, was that the US and Britain had jointly developed and built huge landing craft – LSTs (Landing Ship, Tanks) – that weren't reliant on harbours – they could deliver troops, large vehicles, artillery and more via the beaches before any of the ports were captured.

"Jeeps bearing staff officers were as common as yellow cabs in the heart of New York," a US naval officer said of the beach at Omaha, which he compared to "Coney Island on a hot Sunday".

BATTLED HEDGE TO HEDGE

However helpful, the LSTs weren't enough on their own, and Cherbourg remained a key target. But the advancing Americans soon encountered an unexpected obstacle in the form of the French hedges. The Normandy hedges were deeply rooted in history. Since Roman times, farmers had built earth embankments several metres high to enclose cattle inside.

Sunken roads led between the hedges while at the top of the embankment, trees were planted that spread their branches over the top of the roads to form tunnels.

"The roads themselves, shut in by clay banks in this melancholy way, are not unlike the moats of fortresses," wrote French author Honoré de Balzac's 100 years earlier. Unfortunately, the Allies had not done their homework properly. They'd seen the embankments in aerial photos, but assumed they were no higher than traditional British hedges – small enough for fox hunters' horses to jump.

Normandy's huge hedges enclosed each field, and often had just one gap in which to enter or exit, which the Germans covered with artillery. The roads between the hedges provided soldiers with no view – there were leaves, branches and foliage no matter where their eyes turned. The soldiers hated it. At the same time, the hedges simplified the military strategic nature of the fighting. Normandy's hedges provided excellent defensive opportunities for the Germans while the Allies had very specific objectives: capture the next hedge, the next field, the next village.

> "When you are under its fire you are the sole target. All of that shrieking, whining venom is directed at you and at no-one else."

US GENERAL LED THE WAY

Normandy was also home to French stone houses. Their thick walls made them as solid as bunkers, and if Germans entrenched themselves in such a house, many soldiers had no idea what to do.

The day after D-Day, General Norman Cota passed by a group of infantrymen who were taking cover while Germans shot at them from a farmhouse. Why, he demanded, had the soldiers not tried to take it?

"Sir, the Germans are in there, shooting at us," replied their commanding officer.

"Well, I'll tell you what, captain," Cota replied. "You and your men start shooting at them. I'll take a squad of men and you and your men watch carefully. I'll show you how to take a house with Germans in it."

Cota moved with his group as close to the house as possible until he cried loudly and charged forward at the head of the group. His men kicked down the door and threw hand grenades through the windows and doorway. After the explosions, the surviving Germans fled.

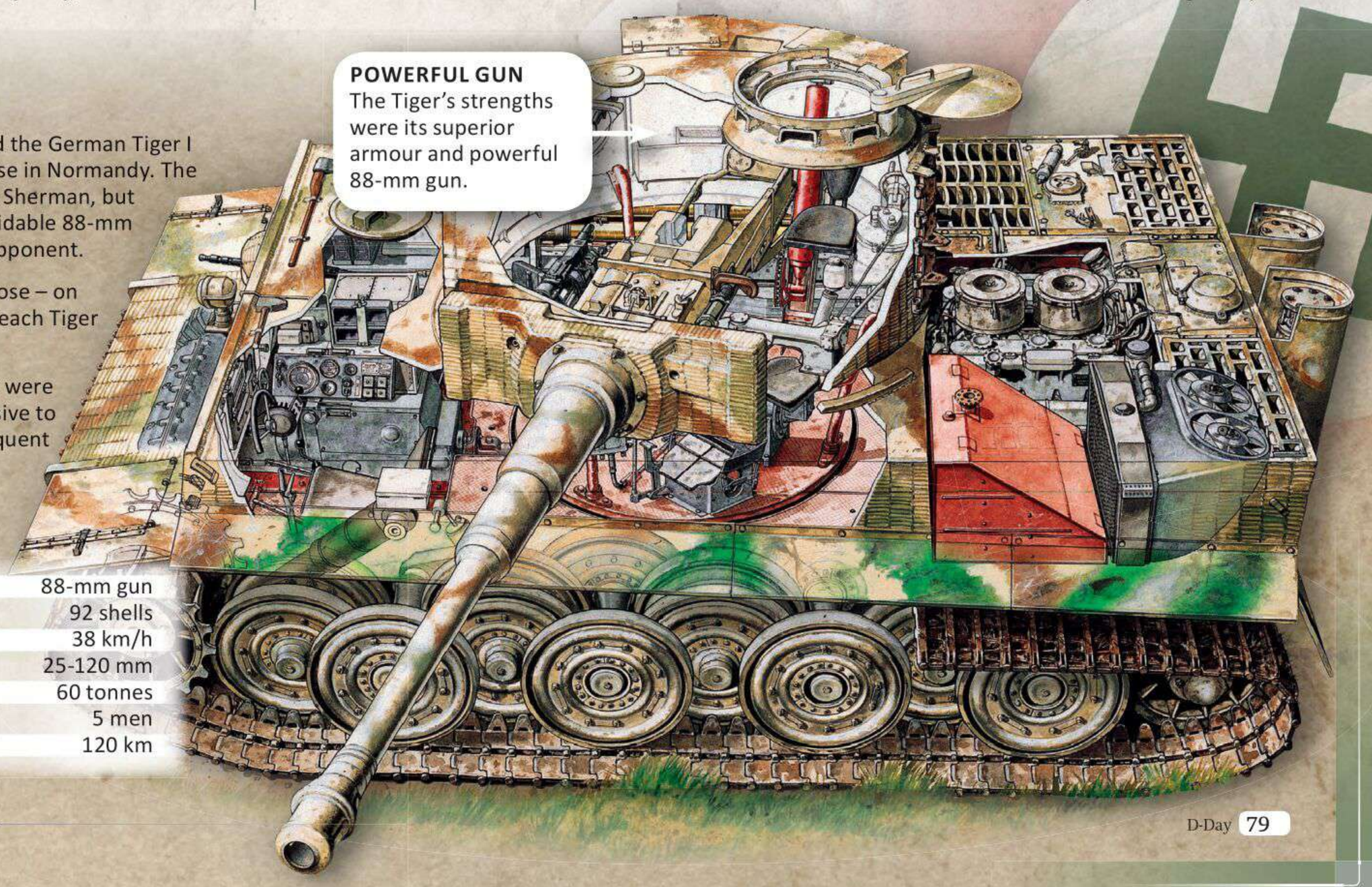
"You've seen how to take a house," Cota said when he next stood next to the captain. He was confident the story would quickly

TIGER 1

■ Allied tank crews feared the German Tiger I heavy tank like nothing else in Normandy. The Tiger was slower than the Sherman, but its thick armour and formidable 88-mm gun made it a terrifying opponent.

■ The Allies expected to lose – on average – three tanks for each Tiger they knocked out.

■ Only 1,350 Tiger I tanks were built, as they were expensive to produce and suffered frequent mechanical failures.



Armament	88-mm gun
Ammunition	92 shells
Top speed	38 km/h
Armour	25-120 mm
Weight	60 tonnes
Crew	5 men
Operating range	120 km

“The fighting in the west has now begun… We have stepped up to the highest battle.”

circulate the division so the other soldiers would hear it. For though the men had been trained for the invasion, much remained to be learned during those first hours and days after their arrival in Normandy.

Elite troops disappointed

Field Marshal Bernard Montgomery also learned a lesson that forced him to switch tactics if he hoped to take Caen. On 10th June, Montgomery met Generals Miles Dempsey and Omar Bradley (US) in a field at Port-en-Bessin between Omaha and Gold Beaches, where the British and Americans had closed the gap between the beaches. They spread out a map on the bonnet of the car, and Montgomery explained that the British and Canadians would make a pincer movement: the 51st (Highland) Division would move east of Caen to attack from Cagny while his ‘Desert Rats’, the 7th Armoured Division, would attack from the left via the American flank near Tilly-sur-Seulles. The Desert Rats had fought in North Africa earlier in the war for Montgomery, as had the 51st Highland Division, and he considered them his two best cards.

But it had been a long way from the Desert War to the fronts of Normandy. The 51st hadn’t even come close to reaching Cagny before being stopped by German battlegroups and armoured forces. They were able, however, to meet up with the Allied paratroopers who’d been fighting at the Orne River despite being outnumbered.

The 51st were caught out by the German tactics: small, sharp actions followed by concentrated artillery bombardments. One Highlander described it thus: “The fury of artillery is a cold, mechanical fury, but its intent is personal. When you are under its fire you are the sole target. All of that shrieking, whining venom is directed at you and at no-one else.”

Both regular soldiers and their commanders were mentally broken within hours, and the paratroopers at Orne couldn’t believe their own eyes when they saw the trained, experienced Highlanders in action.

Montgomery’s elite troops were not as hardened as expected, and the idea that the 51st (Highland) Division could reach Cagny to play their part in a major attack on Caen was quietly forgotten.

61,732
Allied soldiers were killed, wounded or missing in Normandy in late June.

Tigers lurked in ambush

On the other flank, the 7th Armoured Division’s commander, Major General George Erskine, led an advance towards the village of Villers-Bocage. Erskine deployed his best reconnaissance unit on his flank instead of keeping them in front, as he had been told.

It would prove to be a mistake that led to the most devastating ambush in British military history. Things started favourably enough. The division’s 22nd Armoured Brigade made surprisingly easy progress to Villers-Bocage. The small town was an important strategic target and its French residents were thrilled when the Allies rolled through the streets on 13th June at 08.00. They threw flowers on to the tanks and offered the soldiers butter and cider brandy.

North-east of the town lay a hill, which the Allies had named Hill 213, and holding this was critical to controlling the town. When a German armoured car was spotted in the vicinity, Lieutenant Colonel Arthur, Viscount Cranley, who commanded the 4th Company of London Yeomanry (Sharpshooters), sent “A” Squadron forward while commandeering a scout car to take a closer look at Hill 213.

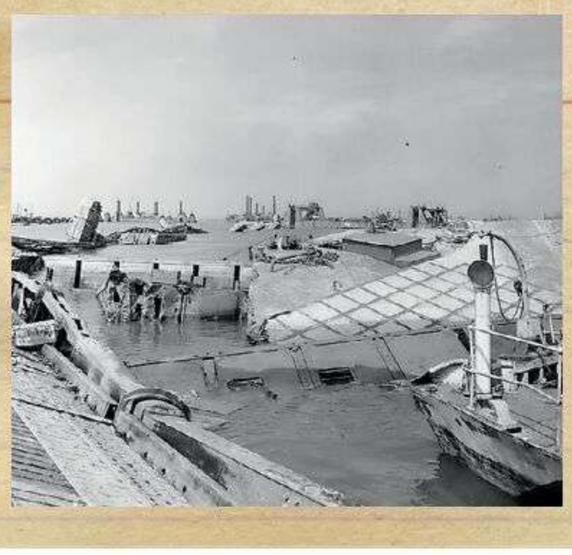
But five German Tiger I tanks lay hidden in a small forest nearby. The Germans knew there was a hole in their lines and had sent reinforcements to close it. Legendary panzer commander Michael Wittmann and his five Tigers formed the vanguard, and when he saw “A” Squadron in front of him, he didn’t take the time to appraise the situation. Instead, he swung out of the forest and, one by one, he blasted the British tanks with his powerful 88-mm gun.

The British tank column was left in chaos, and Wittmann left them to attack Villers-Bocage on his own. He drove confidently down the main street, first targeting the 4th Company’s command post and then moving on to “B” Squadron. They were caught by surprise; many of the men were not in their tanks or ready for battle, and those who could were frustrated by how little damage their Cromwell tanks inflicted on the superior German Tiger.

Wittmann left town but then returned later that afternoon with tanks from the 2nd Panzer Division. By then, however, the 22nd Armoured Brigade was ready and waiting for him. Despite a fierce barrage, the Allies managed to repel the attack. But Erskine was left shaken; instead of



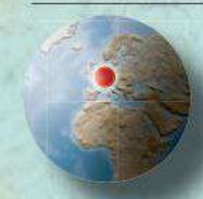
TECHNOLOGY · CULTURE · ECONOMY · EVERYDAY



Storm hit the Mulberry ports

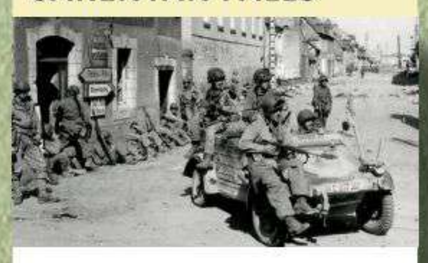
On 19th June, the worst storm in 40 years struck the Normandy coast. The two artificial Mulberry ports, which had been towed over the Channel to help with the fast unloading of ships at the beaches, were severely damaged, and reinforcements and supplies were delayed for weeks. There was one bright spot, though: if D-day had been postponed for 14 days (as proposed just before the landing), the invasion fleet would have sailed directly into the storm.

BATTLE FOR A FOOTHOLD



The days after the invasion of Normandy didn't quite go as planned. The Germans fought fiercely, and the British particularly struggled to achieve their aims.

CARENTAN FALLS



■ *Carentan was a thorn in the side of the Americans, separating its forces from Utah and Omaha. The 101st Airborne attacked German paratroopers in the town and, after a day's fighting, rolled victoriously through the main street on 12th June.*

TIGERS STRIKE BACK

■ *On 13th June, German Tiger I tanks surprised the British at Villers-Bocage and drove an armoured wedge into the town. Five German Tigers destroyed 12 British Cromwell tanks, and the Allies were forced to withdraw.*



OPERATION EPSOM STALLS

■ *After withdrawing from Villers-Bocage, Montgomery tried to break the German lines and capture Caen on 26th June. But 60,000 British soldiers were only able to advance 8 km in four days and the strategically important city remained in German hands.*

Allies bridgehead

Front line

German territory

0 *15 km*

reinforcing the brigade in Villers-Bocage, he decided to withdraw his forces while at the same time the German panzer division attacked at any possible opportunity. Meanwhile, the RAF virtually levelled Villers-Bocage that night. The town's inhabitants, who'd earlier welcomed their British liberators so lavishly, were now either dead, wounded or in flight.

Montgomery had difficulty admitting that everything didn't go as planned in Normandy. Even after the strategic disaster at Villers-Bocage, he wrote to Churchill that: "Battle is going well at junction of the two armies in the general area Caumont-Villers-Bocage-Tilly."

An even larger attack was planned, this time under the name Operation Epsom with 60,000 men. But this too failed, and it appeared Caen would be the British Achilles' heel.



German SS panzer forces wore short uniform jackets to provide both warmth and free movement in the cramped tanks.

CHERBOURG WAS TAKEN

While the German panzers were engaged on the British front, US forces advanced towards Cherbourg. Despite their struggles with working through the hedges and stone houses, the Americans made rapid progress. Over the space of four days, the 9th Infantry and 82nd Airborne Divisions pushed across the Cotentin Peninsula and effectively cut it off from the Germans. On 22nd June, the US launched a fierce bombardment of Cherbourg. The town's sirens rang, and the German soldiers ran to man their positions.

Many were German teenagers employed in construction because they'd yet to finish training as soldiers. Eventually, Generalleutnant Karl-Wilhelm von Schlieben, Cherbourg's new commandant, realised the battle was lost. "Final battle for Cherbourg has begun," a staff officer reported over the radio on 25th June. "General takes part in fighting. Long live the Fiihrer and Germany".

When the Americans finally reached Cherbourg and had overcome any remaining small pockets of resistance, they discovered the harbour had been destroyed by German engineering troops. It would take weeks to repair before the Allies could use it to receive supplies and troops.

THE BEGINNING OF THE END

Despite the port's destruction, the fall of Cherbourg was an important step in the struggle to gain a foothold on the European continent. Although the bridgeheads hadn't been as expanded as much as hoped, the Allies hadn't stalled – they'd made progress and the German Reich was faltering.

The seriousness of the situation was clear to a German panzer officer who, in the middle of the battle for the Normandy, took the time to send a letter home:

"The fighting in the west has now begun. You can imagine how much we are needed and that little time is left for writing. It is all or nothing now, it is about the existence or the end of our beloved Fatherland… We have stepped up to the highest battle."■

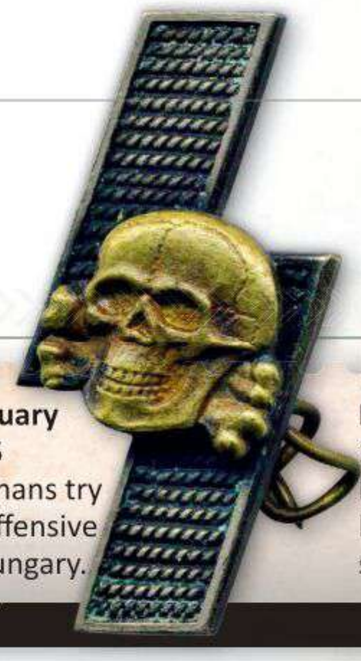


YOUTH UNDER FIRE

1944-1945

Shells rained down, and Allied troops poured ashore. But Hitler slept on, Field Marshal Rommel was on holiday, and General Gerd von Rundstedt was left powerless to act. Despite months of preparations, D-Day came as a complete to believe rumours of invasion were serious. However, the 12th SS Panzer Division "Hitlerjugend", consisting of very young soldiers, a birthday present for Hitler, were sent to stop the Allies as they poured onto the Normandy beaches. The Panzer Division's main task was to hold the city of Caen.

1944-1945



7th June, 1944 On D-day Hitler instructs Youth Division into battle at Caen.

August 1944 Germans flee Caen to Falaise.

December 1944 Last German offensive in Ardennes.

January 1945 German defeat in the Ardennes. Germans retreat to the East.

February 1945 Germans try an offensive in Hungary.

May 1945 12th SS Panzer Division surrenders.

1944 1945

On Tuesday 6th June, 1944, Hitler slept in. The night before, he'd enjoyed the company of his closest allies at Berghof, the Führer's private residence in the Alps. Relaxed, they had exchanged memories and discussed the latest movies and plays. The talk went on into the small hours. When Hitler finally woke up there was big news: the Allies had invaded Normandy.

Hitler was relieved. Soon it would be over. His superior German forces would crush the Allies, and afterwards, the new German superweapons would wipe out Great Britain and other Western powers.

Hitler beamed with confidence as he left his private chambers to attend the day's first meeting with his ministers.

At the meeting, Foreign Minister Joachim von Ribbentrop strongly backed Hitler. Goebbels was less impressed: he knew all too well what was coming. The German war machine was tired after two years of severe setbacks in Africa and on the Eastern Front. Hitler's only 'super' weapon was the 20,000-odd young boys he was soon to deploy in battle in Normandy under the 12th SS Panzer Division "Hitlerjugend".

At dawn that morning the "HJ" Division had a reconnaissance patrol hidden in a camouflaged armoured car parked near to the beach when they spotted a nondescript grey mass at sea. Gradually the murky shapes resolved into row after row of landing craft, waves splashing across their broad hulls. As they approached shore, they deposited "brown clumps" of uniformed men. They teemed over the beach like ants while tanks began to zigzag through the dunes. His heart thumping, the patrol's leader, Obersturmführer Peter Hansmann counted the ships between two lines in his binoculars – eight times 50, at least 400. He grabbed the radio to report: "The British are constantly landing troops and heavy equipment without hindrance."

Adrenaline overruled fear: they had to fight back. His division, the 12th SS Panzer Division "Hitlerjugend" was Germany's young hope, and now they finally had the chance to prove their mettle.

Hitler gave his name to 1st SS Panzer Division "Leibstandarte Adolf Hitler", and 12th SS Panzer Division "Hitlerjugend".

THE YOUTH WERE A GIFT TO HITLER

The young men had been indoctrinated with tales of German invincibility and were blissfully unaware of what fate had in store.

Since the costly defeat at Stalingrad in the winter of 1942, the German army lacked both manpower and morale. The Hitler Youth, the Nazi party organisation for young boys, could provide both. Its young members were taught blind obedience and fanatical allegiance to Hitler and Nazi ideals. Many had no greater dream than to fight for Germany – and in particular the elite SS guard, which had an almost magical attraction to the boys.

Artur Axmann, Hitler Youth's ambitious leader understood this perfectly, and exploited it to the full. He teamed up with Reichsführer-SS Heinrich Himmler, head of the SS, to create an SS corps for boys born in 1926 – basically, a generation that remembered nothing of life before Hitler, who had been taught to follow Nazism blindly both in school and during their leisure time.

The corps was formed by 1st SS Panzer Division "Leibstandarte Adolf Hitler", the dictator's celebrated corps of bodyguards. The new corps stood ready in the spring of



SS COMMANDER KURT MEYER 1910-1961

THE FAITHFUL NAZI

■ When Kurt Meyer took command of the "HJ" Division on 14th June, 1944, he was only 33 years old but had more combat experience than most. He was trained in the police and joined the Nazi Party in 1930. By 1934, the year after Hitler seized power, he was transferred to the SS Leibstandarte "Adolf Hitler", the Führer's personal bodyguard. During the war, Meyer made his name in Poland, Russia and the Balkans before he was deployed to the "HJ" Division in 1943. As the division retreated in September 1944, Meyer was captured. The US demanded a court-martial, accusing him of killing Allied prisoners during the Battle for Caen. Prosecutors concluded that Meyer could not be held personally responsible, however. He was released after nine years in prison, five of which were served in Canada.

Policeman nicknamed "Panzermeyer" – Hitler's bodyguard – Commanded "HJ" Division



1943, just in time for Hitler's birthday on 20th April. An appropriate gift, thought Kurt Meyer, the SS officer and a deputy commander of the division.

"The Division was to be a symbol of the willingness of the German youth to sacrifice itself and of its will to achieve victory," wrote Meyer.

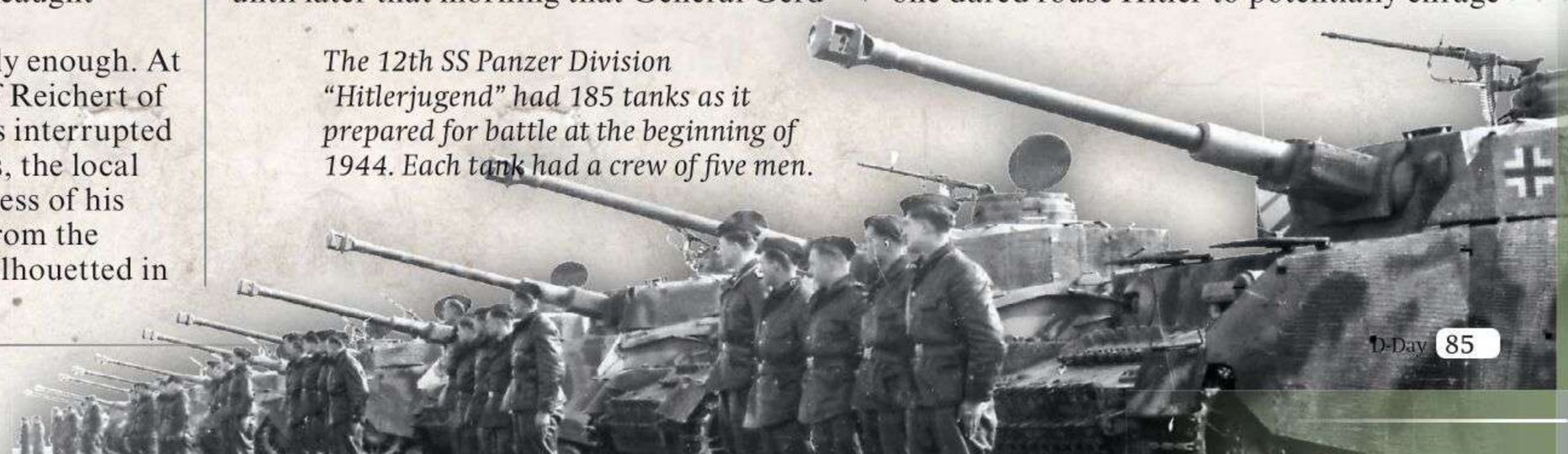
No-one dared upset Hitler

The young would soon be required to sacrifice themselves. Hitler's optimism had no basis in reality because, despite long awaiting an Allied landing somewhere in Normandy, the Germans were caught completely off guard.

The warnings had come early enough. At 00.30 Lieutenant General Josef Reichert of the 711th Infantry Division was interrupted while enjoying a quiet calvados, the local apple brandy, in the officers' mess of his division barely 20 kilometres from the coast. He saw enemy aircraft silhouetted in the sky, prompting Reichert to hurry back to his office. With gun in hand, he ran outside, just in time to see enemy paratroopers drop to the ground on the HQ's lawn. For Reichert there was no doubt: the invasion was coming.

In Berlin, no one took any notice of Reichert or any others who reported troop movements through the night. All were convinced that the Allies were merely engaged in a diversion and that the real invasion would come somewhere else – probably at the English Channel's narrowest point nearer to Calais. It wasn't until later that morning that General Gerd von Rundstedt, who as commander in Western Europe was responsible for battle-readiness, decided that something had to be done. Reluctantly he contacted Field Marshal Erwin Rommel, commander of Army Group B and responsible for repelling the invasion. Rommel, who was on leave at home with his wife, in Herrlingen, in Germany – 800 kilometres from the front – rushed back to France. No one dared rouse Hitler to potentially enrage

"HJ" Division recruited young men born in 1926 who were all fanatical followers of both Nazism and Adolf Hitler.



The 12th SS Panzer Division "Hitlerjugend" had 185 tanks as it prepared for battle at the beginning of 1944. Each tank had a crew of five men.

him if it turned out that the Allies were bluffing.

The result was that nothing happened before 16.00 when Hitler finally left his bed and was appraised of the situation. By then, it was already too late. The Allies were rolling inland.

Death came from the air

The young German soldiers were given their marching orders and embarked on the road to Caen – the city they had been tasked to defend. Here they soon got a taste of what to expect. Allied aircraft swarmed across the skies and the Luftwaffe, which was greatly weakened after major defeats on the Eastern Front, did not have the strength to challenge the Allied air superiority.

Evidence of battles and massive destruction met the young men wherever they looked. Mangled wrecks of tanks and the remnants of shells lay along the roadside, while soldiers on the road were easy prey for the British aircraft.

"A string of Spitfires is attacking the last platoon of 15th Company. Rockets and other weapons are reaping a grizzly harvest. The platoon is driving down a sunken road, evasion is not possible. A grenadier is lying in the road, a jet of blood shooting from his throat... The ammunition in an amphibious vehicle explodes with a loud bang, the blast shoots flames high into the sky, the vehicle is torn to pieces. In a couple of minutes the rubble is pushed aside. There is no stopping. On – always on!" wrote Meyer in his report of the bloody march.

Meyer had reason to hurry. The journey was a race against time as holding onto Caen was of paramount importance for the German defence. The old medieval town was around 18 kilometres from the beaches, positioned between the River Orne and Caen Canal, and so was of great strategic importance. If the Germans could retain control of the two waterways, they could form a serious obstacle to the Allies' onward journey through France.

Additionally, Caen had two other advantages: the city was a hub for transportation, roads spread from all sides, and – important where most land was characterised by thick and dense forest – the terrain here was both flat and open, so suitable for an airbase.

The order to the German soldiers was to defend the city, at any cost.

20,540
young men in the "HJ" Division in 1944. Only half remained alive in 1945.

Drive enemy back into the sea

Few could imagine what the costs might be: certainly not the 20,000 young soldiers who by the next day were preparing themselves for battle at the division's headquarters in Abbaye d'Ardenne – a medieval abbey slightly north-west of the city. Their orders were to "drive the enemy... back into the sea and destroy him".

It would not be an easy task. As evening fell on 6th June, more than 150,000 Allied troops had landed in Normandy. British troops were heading towards Caen with only the division's 25th SS Panzer Grenadier Regiment standing in their way. Yet the division managed to keep the Allies out of Caen, a town that had been earmarked for capture on the first day of the invasion.

Battles raged back and forth, between small towns and along the roads in the area between Caen and the coast – all while taking heavy fire from the ground, air and the sea, where Allied ships rained shells on Caen during D-Day.

The evening of 6th June was particularly tough on the first line of the "HJ" Division's defenders as they faced the hail of shells from the sea. By nightfall, more than 83 casualties had been reported, including 22 deaths.

The Allies, however, were kept out of Caen, and although they weren't driven back into the sea, the Germans could note several small victories. One of them took place in Buron, west of Caen.

The town had been taken by Canadian soldiers, but when the "HJ" Division advanced to recapture it, the Allies retreated, leaving behind their supplies. The young soldiers celebrated the day's success by gorging themselves on delicacies: salted meat, peanuts and chocolate.



German soldiers did not have enough anti-tank weapons to stop the Allies, who advanced on Caen with about 60,000 troops and 600 tanks.

Heave anti-tank fire

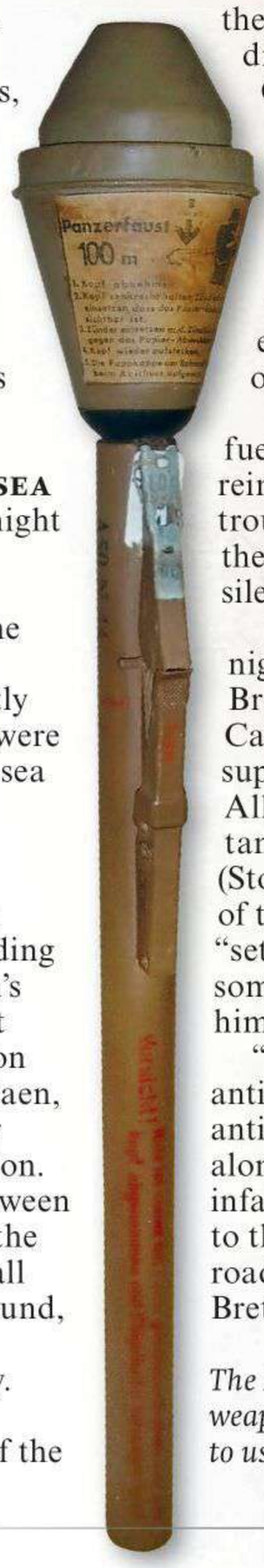
Even without the Allies' rations, the German soldiers did not starve in Normandy. There were enough cows to provide both meat and milk to supplement their normal rations of bread, sausage and jam. Critically, however, they were plagued by a lack of spare parts, ammunition and fresh troops.

The Allies continued to advance over the next two days despite the disappointment of being kept out of Caen, and on the morning of 8th June, the Allied beachhead stretched 56 kilometres along the coast and 8-16 kilometres inland. From here, the Allies constantly added new men, equipment and supplies while Allied air supremacy ensured very little fell into the hands of the Germans.

Reinforcements, ammunition and fuel were soon in short supply. The reinforcements that were sent had trouble finding the other units because the constant air strikes meant radio silence had to be maintained.

The "HJ" Division tried, on the night of 8th June, to take the village of Bretteville about 15 kilometres west of Caen, but were knocked by back superior enemy artillery. To avoid an Allied air strike they attacked with tanks at night, and *Sturmmann* (Stormtrooper) Hans Kesper heard one of the officers shout that they should "set the houses on fire so that we can see something" when the tank in front of him took a direct hit.

"We were surprised by violent anti-tank fire. A great number of anti-tank guns seemed to be in positions along the edge of the town. Canadian infantry was in position in the trenches to the left and right of the tree-lined road running from the north-east to Bretteville. They peppered the mounted



The Panzerfaust was a German anti-tank weapon that was easy for the young soldiers to use. It could penetrate 200-mm steel plate.

EYEWITNESS

JOCHEN LEYKAUFF / Caen, 26th June, 1944

ALONE ON THE BATTLEFIELD



"After many jumps and a fall, I am alone. The rest of my squad, led by Boigh, has disappeared... From behind, there is track noise, then burst of fire along the hedge. I jump into cover, press myself under some branches. Two, three small armoured personnel carriers rattle past, a white, five-pointed star on the side wall. Suddenly, it is quiet, then, the howling of engines, automatic weapons fire... To the right, a soldier in a camouflage jacket is on the ground, moaning quietly. Carefully, I pull him into cover, feeling blood."

INVASION STALLED AT CAEN



The Allies planned to capture the city of Caen on D-Day, 6th June, but the "HJ" Division managed to hold on to the city for a month. When the Germans finally withdrew on 7th July, Caen lay in ruins.

THE ENGLISH CHANNEL

GOLD BEACH

JUNO BEACH

SWORD BEACH

FRANCE

HAND-TO-HAND COMBAT

■ *The commune of Rots fell to the Allies on 12th June. "HJ" Division came up against the British Marines. It was a strategically important goal for the Allied forces and a hard-fought battle ensued between the British and the German soldiers.*



WON WITHOUT A FIGHT

■ *The town of Bretteville-l'Orgueilleuse lay on the route of the Allied invasion. It was taken without a fight by Canadian troops on 7th June, who then repelled all counterattacks from the 12th SS Panzer Division.*

LAY IN WAIT AT ABBEY

■ *Kurt Meyer planned resistance to the invasion from the Abbaye d'Ardenne. From the abbey tower, Meyer watched Canadian troops and saw that the 12th SS Panzer Division "Hitlerjugend" could mount a surprise attack.*



DEFENCE OF RIVER

■ *Caen Canal and River Orne run parallel to the town towards the English Channel, marking the Allies eastern flank during the invasion and was heavily defended by the Germans who had many losses.*



The number of Germans lost at Caen is unknown. 2,500 were taken prisoner.

BRETTEVILLE L'ORGUEILLEUSE

ROTS

NORREY-EN-BESSIN

ABBAYE D'ARDENNE

CAEN

RIVER ORNE AND CAEN CANAL

Front line on 7th June

CARPIQUET AIRFIELD

BACK AND FORTH

■ *The Allies finally captured the city of Norrey-en-Bessin without a fight on 7th June. The Germans returned, and fighting moved back and forth. The Germans finally gave up on 12th June.*

FIGHT TO THE LAST MAN

■ *The small airfield west of Caen was, like the city, an Allied target from day one. 150 men from the "HJ" Division defended the airfield to the last man. They held out until 4th July, despite numerically superior Canadians forces.*

CITY WAS REDUCED TO RUBBLE

■ *The medieval city of Caen was an important transport hub. The city fell to the Allies on 9th July, but the area south of the River Orne remained in German hands until 18th July. It was completely destroyed, and over 1,000 civilians died.*



The Allied Front line German-occupied France

Canadian forces
British forces
German forces

0 4 km

SS SOLDIER WAS WELL PREPARED

The elite soldier's weapon was a machine gun. Their equipment included a gas mask and poncho.

- A Steel hat with SS emblem.
- B Uniform jacket with SS emblem on the collar and logo on the left sleeve. The single silver stripe on the collar indicates rank.
- C Camouflaged trousers.
- D Belt with SS insignia on the buckle.
- E Ammunition pouch.
- F Map and compass case.
- G Sub-machine gun, MP 40, 9-mm.
- H Bag for bread, water bottle and poncho.
- I Long, polished leather boots.
- J Cannister with gas mask.



>>>> grenadiers with wild rifle fire… It was impossible to push into the village," recalled trooper, Reinhold Fuss.

The Allies repulsed the "HJ" Division's attack on Brettville, which gave the Canadians belief that their weapons were a match for the fearsome Panther tanks.

There was no help forthcoming from Hitler. The Wehrmacht's 15th Army were lined up north of the Seine, but despite the Allies' massive offensive, the Führer remained convinced that D-Day was only a diversion. The 15th Army must be saved for when the main attack came.

Hitler's stubbornness sealed the division's fate. The youth would be left in the firing line for the defence of Caen. Throughout the day and into the short, midsummer night the soldiers dug to transform low trenches into bunkers with walls reinforced by sleepers commandeered from the nearby railway.

Meanwhile, the Allies approached Caen. On 11th June they reached the town of Rots, 9 kilometres outside Caen. All through the night soldiers fought in the small town's streets. They shot each other at close range and battled with gun barrels, bayonets and grenades until the Germans were eventually forced to surrender.

A terrible scene awaited the Allies on the morning of 12th June, as they marched into the city. "The commandos were lying dead in rows next to the dead SS men. Hand grenades were scattered everywhere in the streets and front doors of the houses. At one spot we saw a commando and an SS man who died virtually arm-in-arm, one killing the other. At another spot we found a German and a Canadian tank, having crushed each other. They were still smoking and from each side of the smoke-blackened turrets hung the dead bodies of the machine gunners," wrote a Canadian reporter who visited Rots, the following day.

EXPECT TOTAL ANNIHILATION

Relative calm prevailed over the next two weeks since both forces had driven each other to exhaustion. Artillery skirmishes, strafing and naval bombardments,however, continued unabated.

Documents reveal that one of the battalions, located in one of the most tranquil areas on the front, lost an average of one or two men a day, while about a

> "The Allies, who had broken the German codes, decided to put everything into taking Caen before the reinforcements arrived."

A soldier from the "HJ" Division is taken prisoner by two Canadian soldiers during the Battle for Caen.

dozen were wounded or unaccounted for. Yet historians estimate that the losses elsewhere were considerably higher.

Most of the losses were due to artillery fire. This was also the case for Fritz Witt, "HJ" Division's commander, who was killed by a grenade on 14th June. Kurt Meyer took charge. He totted up the division's losses and the result was disheartening: 403 dead, 847 wounded and 163 missing, while only 90 of the division's original 148 tanks remained operational.

"Our own losses… are high," Meyer concluded on 16th June. "SS-Pz-Pi-Btl 12 must be regarded as being wiped out."

The endgame had begun. On 11th June, Hitler gave orders to send reinforcements to Caen, and soon a panzer division from Belgium started moving accompanied by a panzer corps from the Eastern Front. The Allies, who had broken the German codes, decided to put everything into taking Caen before the reinforcements arrived. 60,000 men and 600 tanks advanced on the city.

Defied Hitler's orders

The decisive battles began on 26th June at 07.30 with a barrage of gunfire against German positions. Telephone cables were severed, anti-tank weapons destroyed, and many died or were wounded. Surviving soldiers crawled forward, attempting to counterattack armed only with small guns and Panzerfaust.

The small handheld anti-tank weapon could easily penetrate 200 millimetres of steel and was critical to the German soldiers in the last days of the fighting for Caen. The weapon was both cheap and easy to use, and therefore ideal for the young soldiers, whose lack of weapons' training was offset by fanaticism and a willingness to fight.

The "HJ" Division sent all remaining personnel into the fray, including staff officers and supply troops, and for a while, they managed to stop the Allied advance.

This short-lived victory cost the lives of 700 young soldiers, and soon Allied tanks roared towards Caen again.

This time they weren't halted. On 4th July the airfield outside the city fell, and the Allies dropped 2,560 tonnes of bombs over the city's northern outskirts.

Despite Hitler's orders to hold Caen whatever the cost, Meyer began to pull the remnants of his troops away from the city. During the evacuation, he found some of his 25th SS Panzergrenadier Regiment sleeping, exhausted after 33 days of fighting.

"They marched into battle with fresh, glowing face. Today, mud-covered steel helmets threw their shadows on sunken faces whose eyes had beheld the beyond all-too-often." wrote Meyer later.

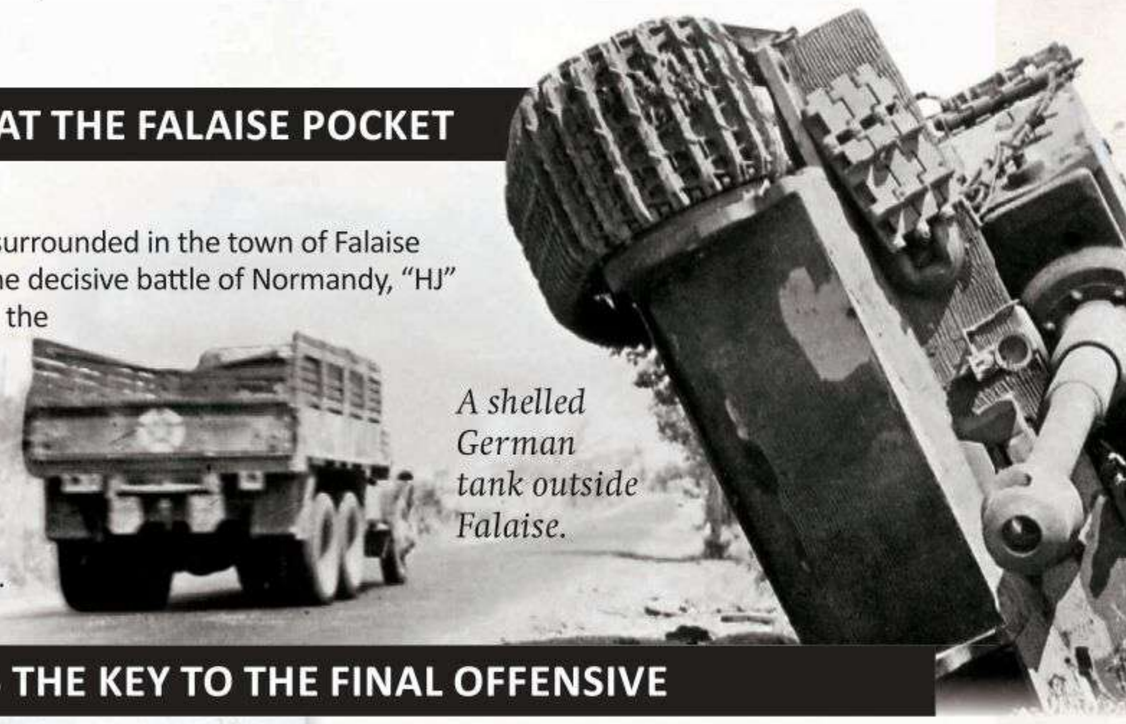
The soldiers awoke one by one. They trudged away from Caen, with their ammunition belt hanging around their neck. Soon, Caen's ruins were soon occupied by the Allies.■

YOUTH WERE SACRIFICED

The Battle for Caen was a baptism of fire for the young men of the 12th SS Panzer Division. Survivors were later deployed on fronts where the Germans were hardest pressed at the end of the war.

8,000 WERE KILLED AT THE FALAISE POCKET

■ Falaise pocket, August 1944
■ When German troops were surrounded in the town of Falaise some 30 km south of Caen in the decisive battle of Normandy, "HJ" Division held a narrow corridor, the Falaise Pocket, open so soldiers could escape. 10,000 Germans escaped through the corridor. On the other hand, many of the young men from the panzer division were captured, and around 8,000 of them died.



A shelled German tank outside Falaise.

HITLER YOUTH WAS THE KEY TO THE FINAL OFFENSIVE



The 6th Panzer Army with the young German soldiers offered more resistance than expected.

■ Ardenne Offensive, December 1944
■ The Battle of the Bulge was the last German offensive during WWII. The plan was to drive a wedge between the Allied forces in the Ardennes, take Antwerp, encircle and defeat four Allied armies. The remains of the 12th SS Panzer Division and the 1st SS Panzer Division were merged into the 6th Panzer Army. The offensive, which began on 16th December, came to a standstill on 24th December, and by 8th January, 1945 the Germans realised the battle was lost, and began their retreat.

MEETING WITH THE RED ARMY WAS FATAL

■ Hungary, Spring 1945
■ After withdrawing from the Ardennes the 6th Panzer Army was sent to Hungary in January 1945. It was tasked with fighting the Red Army who had surrounded the German forces. As the 6th Panzer Army arrived, it immediately went into action near the city of Gran where it destroyed a Russian bridgehead. Their next task was to recapture Hungarian oilfields, but the division gave up and retreated to Austria. On 8th May some 10,000 survivors surrendered to the US.



The young soldiers were tightly squeezed between the Red Army and the Allies.

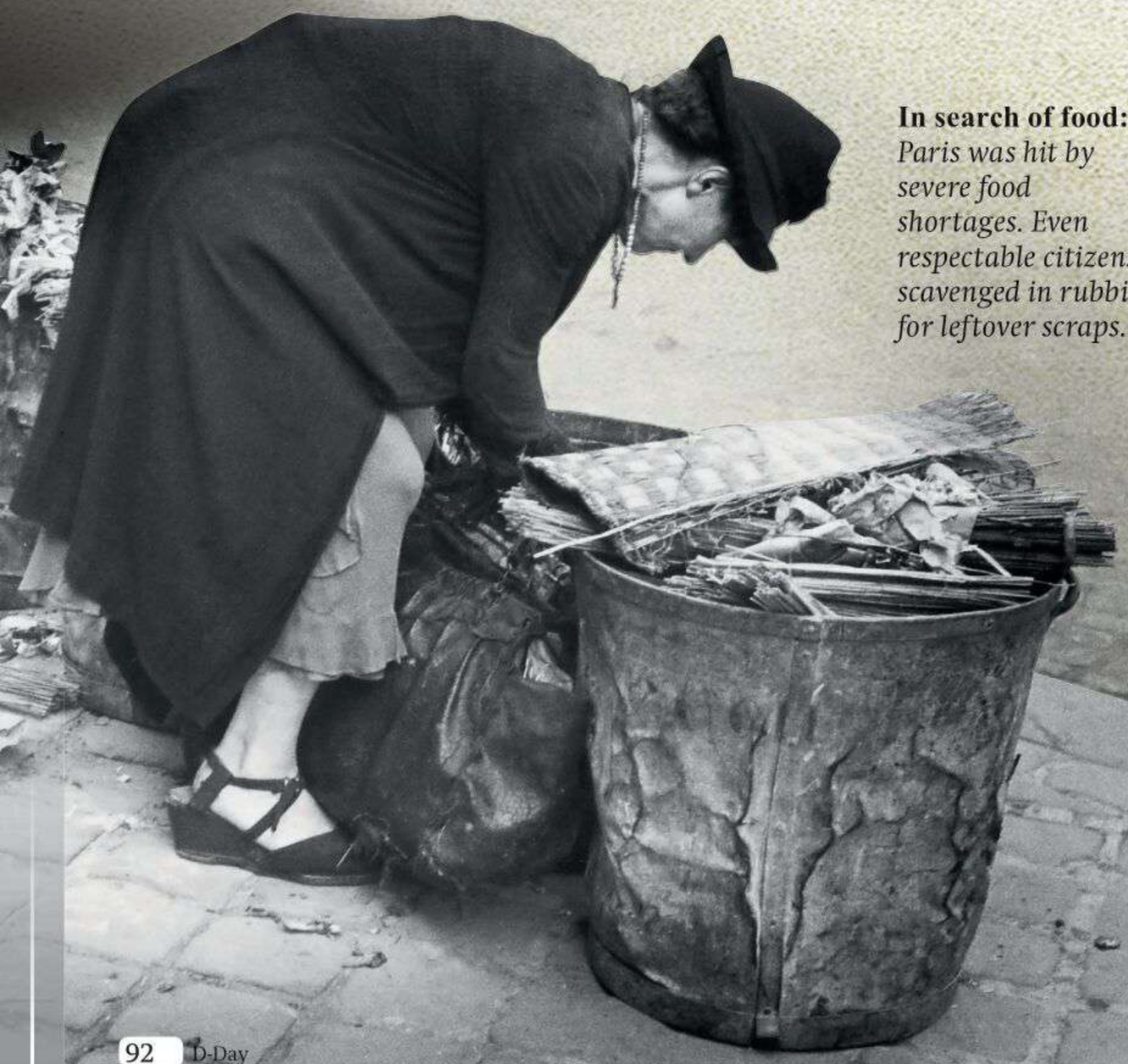




DAILY LIFE IN THE SHADOW OF WAR

"Ici Londres" – "Here is London" – this phrase could be heard in many French homes in 1943 and 1944 despite the Germans' attempt to disrupt the BBC's broadcast frequency. Radio programmes kept the French informed about the development of the war. After D-Day, they used them to follow the Allies' advance and the city-by-city liberation of France. And while they were waiting for the whole country to be free again, hunger, bombs and bloody revenge were part of everyday life.

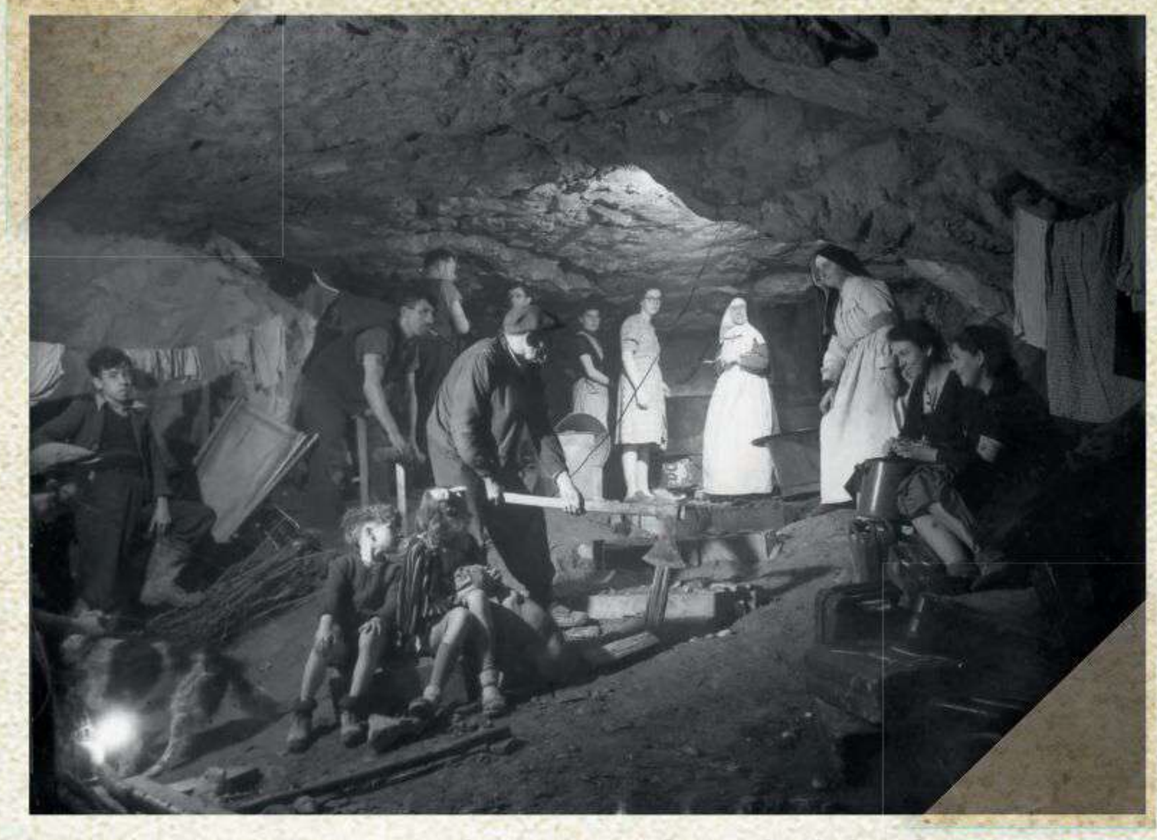
Washing: *in spite of the invasion, daily life went almost as usual in Normandy. A few days after the Allies had cleared a city of German forces, the women were hanging laundry out to dry, and the children were playing outside in the sun: all this, despite the distant rumble of artillery, bombs and shells from the front.*



In search of food: *Paris was hit by severe food shortages. Even respectable citizens scavenged in rubbish for leftover scraps.*



Revenge bombing: *in the autumn of 1944, the Allies secured Antwerp in Belgium. The Germans responded by attempting to destroy the city and its crucial port with their dreaded V2 bombs.*



Underground refuge: *around 20,000 people sought shelter from bombs and shells in the quarries near the town of Fleury-sur-Orne, outside Caen.*



Rebellion: *in the hope of early liberation, Warsaw's inhabitants rebelled in the autumn of 1944. But after two months, exhausted by hunger, they gave up.*

HOME AND FOOD

■ In 1944, Europe became the scene of the decisive struggle between German forces and the Allies. City after city fell to ruins, people fled and there was widespread hunger. Britain, which was spared a German invasion, was also hit hard – especially in south-east England, where London became the target of German V2 bombs. Children from the capital were evacuated to rural villages to the west and north – beyond Hitler's reach.



Five stones: *one popular game was five stones. Players had to throw stones into the air, snatch up the remainder from the ground then catch the thrown stones in the same hand.*



London's children were sent from the city in 1944. On board the train they were served fresh milk.



Children from bombed houses in London gathered in centres before being evacuated.



This little girl was rescued from the ruins of her home in London after it was bombed in July 1944.

CHILDREN



Idyll on the riverbank: *although they could hear the war, this French family tried to enjoy a summer holiday on the banks of the River Marne.*



Autumn work: *around 100 kilometres west of the fierce battles for Caen, men and women brought in the harvest.*



Reading break: *a Parisian woman follows the course of the war in 1944 in the newspaper. She's holding the hen on a string so that it can't run away.*







FASHION In August 1944, Paris fashion favoured wide shoulders and narrow waists in a wide plaid pattern and hats with veils.

For those who couldn't afford a new hat, headscarves were tied in a high-turban.

The wide-shoulder-narrow-waist style was echoed in sewing-patterns of the period.



Parachutes: *the Allied forces in France used equipment made by women, from grenades and pipe bombs to parachutes.*



Day off: *despite battles elsewhere in France, some found time to take a dip in the River Marne.*

WORK AND LEISURE

■ Many of the young men were gone – either fighting in the war or detained in German labour camps. In England, women worked in factories making equipment for the war. While in France, the older men and women helped bring in the harvest. But the war didn't stop Parisian fashion houses setting trends for 1944, and some people even managed to enjoy summer holidays and trips to the seaside – just like in peacetime.



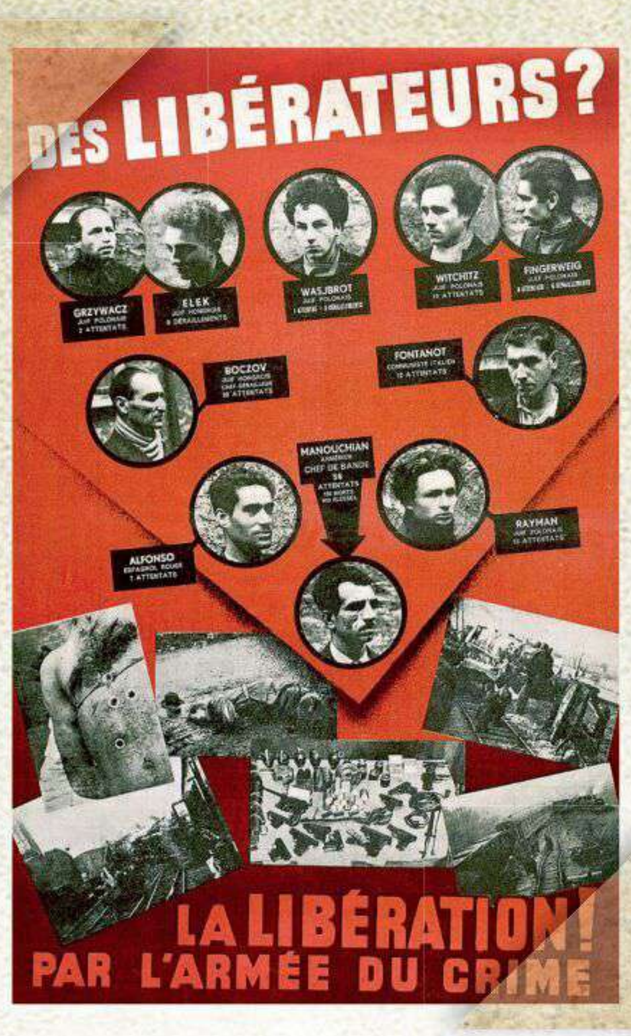
This is London: *the BBC broadcast native-language reports to all German-occupied countries, including France. This enabled many Europeans to follow the progress of the Allies' invasion.*



Cycle trip: *the 15th August is a public holiday in France. In 1944, this Parisian pair rode out into the countryside.*



German affairs: *who'd been the lovers of German soldiers were publicly humiliated. Many had their hair shaved or were stripped naked.*



Scare stories: *in 1944, opposition to the Germans grew in France. Nazi posters detailed how enemies of the Third Reich were killed.*



Executions: *after the liberation, many French collaborators were convicted of treason – some were made to kneel down before being shot.*



Humiliation: *this Frenchman worked with the Germans and was beaten and taunted by his compatriots in August 1944.*



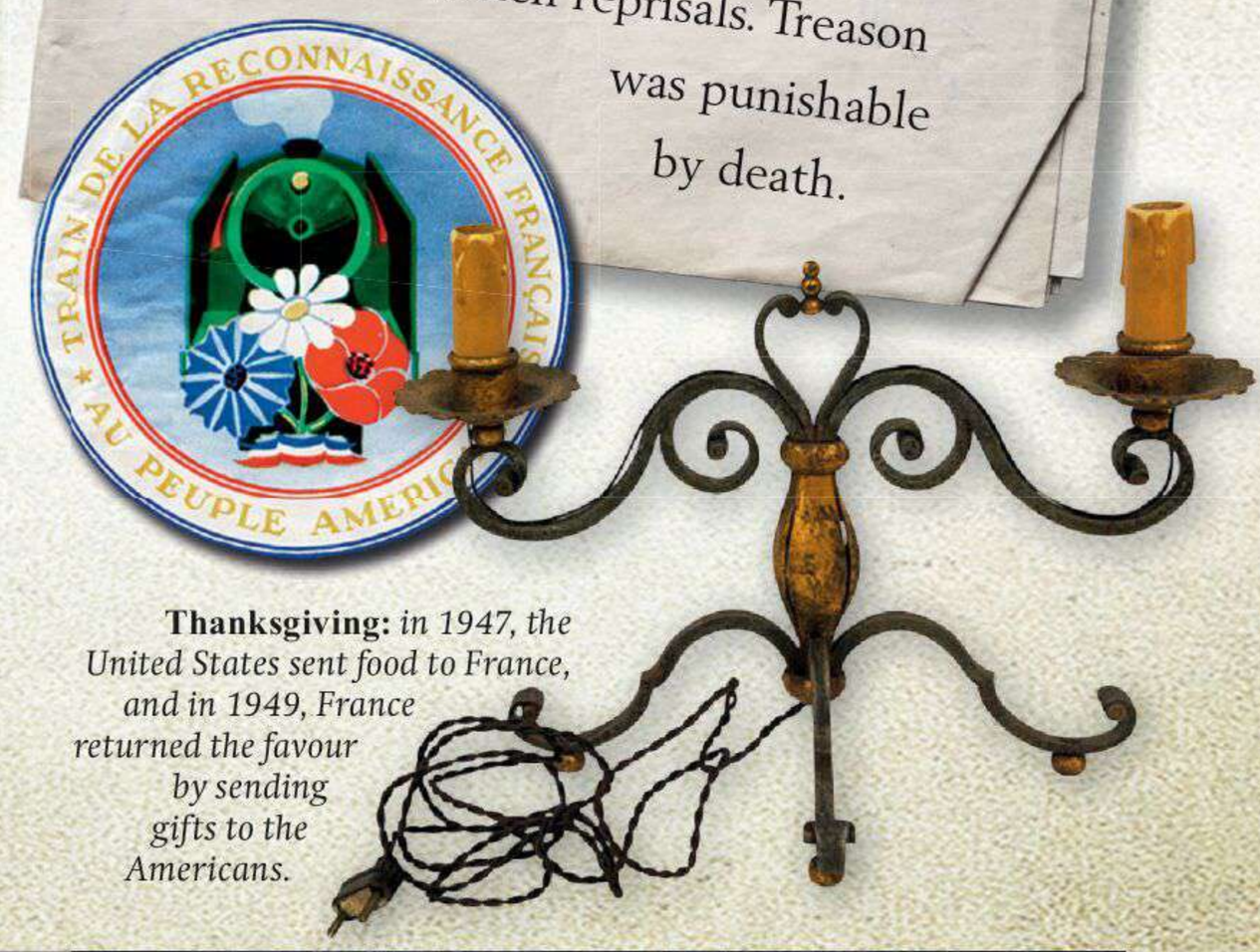
Massacre: *when the Allies began liberating Belgium, they encountered the bodies of civilian men, women and children who had been killed by retreating Germans. French civilians also became victims of German revenge.*



Slaughter: *the average life expectancy of a French partisan was just six months. Many, like this group of Communist freedom fighters, died in a ditch – shot by German soldiers or their henchmen.*

RETALIATION AND PAYBACK

■ During 1944, the German occupying force was harassed both in France and Belgium, and it frequently sought revenge on the civilian population – whether they were guilty of rebelling or not. Once the Germans withdrew, the tables turned, and those suspected of cooperating with the Germans were subject to French reprisals. Treason was punishable by death.



Thanksgiving: *in 1947, the United States sent food to France, and in 1949, France returned the favour by sending gifts to the Americans.*



HOMECOMING

Young French men from German labour camps returned home after the liberation.

As cities were liberated, residents returned home – sometimes with Allied help.

The liberation of Cherbourg after D-Day was a cause for celebration by the townsfolk.

LOGISTICS OF WAR

1942-1944

D-Day wasn't only fought on Normandy's beaches. Behind the lines, engineers, construction workers, food commissaries, mechanics and nurses all worked tirelessly to provide the fuel, food, vehicles and medical care needed to support the troops on the battlefield. The enormous logistical challenge was a spur for innovation. While some engineers developed remarkable mobile port facilities, others created new designs for fuel pipelines, which were secretly laid across the English Channel's seabed to quench the thirst of the tanks in France.



1942-1944

1942 Winston Churchill orders the development of mobile ports.

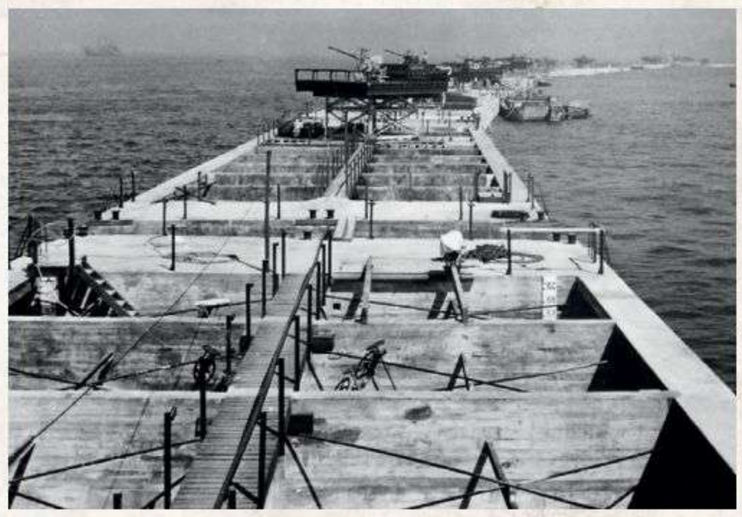
1943 40,000 artisans work to manufacture the Mulberry harbours in England.

June 1944 Mulberry A and B are anchored off Normandy.

August 1944 Ships roll out fuel pipes across the Channel.

October 1944 New pipelines provide fuel to France.

1942 1943 1944



According to Able Seaman Kenneth Bungard the inside of the concrete cassions looked like egg boxes.

When Royal Navy Able Seaman Kenneth Bungard arrived at the quayside in the town of Sheerness on 24th April, 1944, he couldn't believe what he saw. In front of him, in the harbour basin was a colossal concrete structure that looked like a floating block of flats, but without windows or doors. Following orders from his superior, Bungard climbed a ladder that led to the block's top. From there, he could see the entire structure. It was mostly hollow inside and looked, he thought, like a giant egg box. In an attempt to avoid being disciplined for returning late after a leave of absence, Bungard hastily volunteered for a secret mission involving this block without knowing what it was or its purpose.

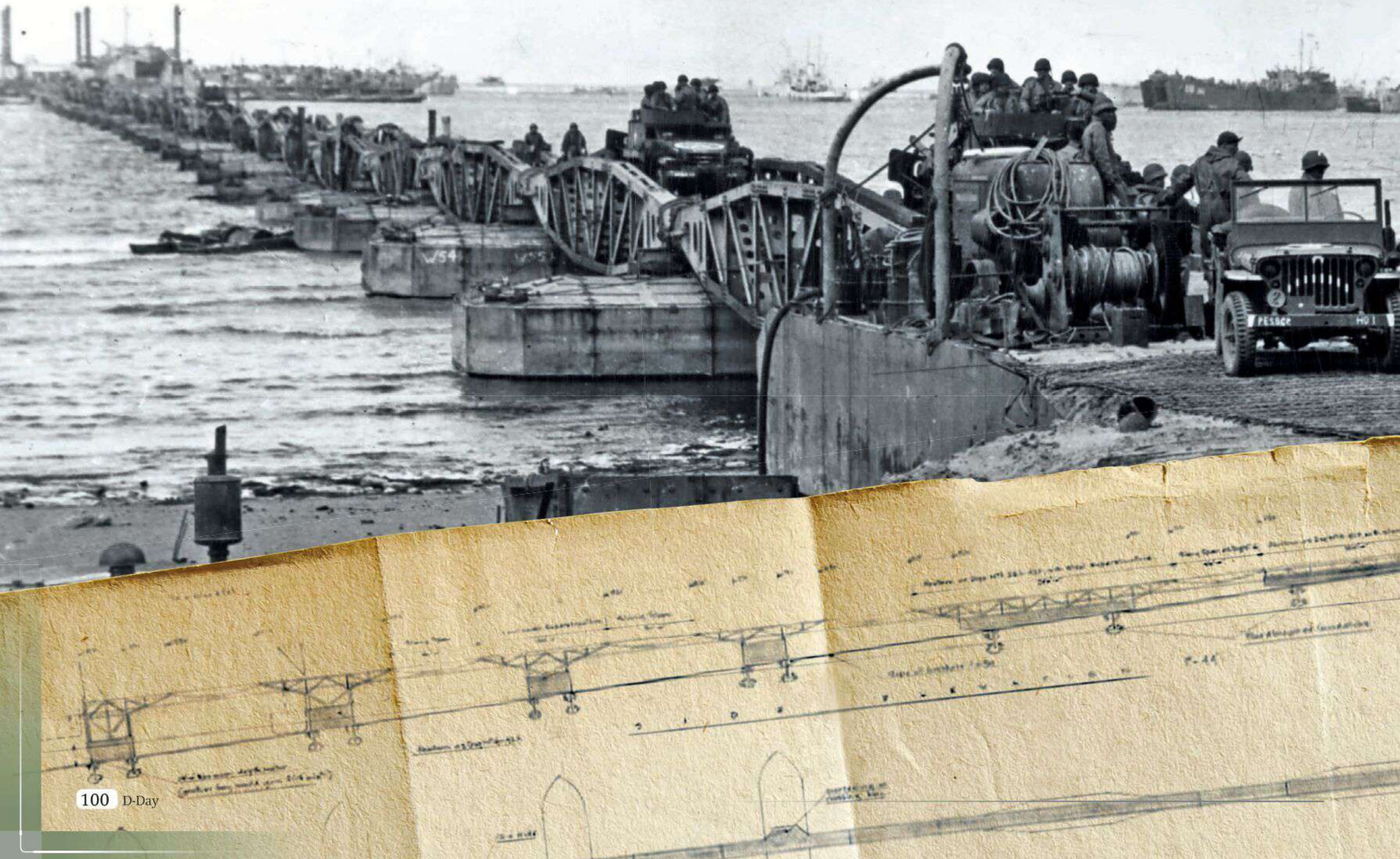
Admirals at the Royal Navy, however, were fully aware of the giant cassion's purpose. They would tow it, and 145 similar blocks – which were codenamed Phoenix – to the Normandy coast. Once there, the Phoenix would act as breakwaters on the beaches selected for the D-Day landings. There were no ports available to the Allies along that stretch of coast, so British engineers developed plans for mobile harbours where ships could unload supplies and soldiers. Bungard's giant egg box was just one piece of the harbour, which would be towed to France and assembled on site.

The planned harbours were a crucial part of the logistical planning behind D-Day. Operation Overlord demanded that everything from troop transport ships to the distribution of morning rations was carefully thought out and organised. 194,000 men had to be transported across the English Channel within a few days. They needed to have enough to eat during the operation and their vehicles would need fuel, too. On top of that, wounded soldiers would need medical attention and possible evacuation to Britain. From 15th-19th June, 1944, the Allies landed an average of 35,000 men, 25,000 tonnes of supplies and nearly 6,000 vehicles on the Normandy beaches every day. The logistical challenge of a successful invasion called for specialists on both sides of the Channel, including engineers, medical staff, construction workers and dock hands.

40,000 MEN HELPED BUILD PORTS

The port cities of Cherbourg and Le Havre, which would have been ideal places to land supplies, were heavily defended by the Germans and, even under ideal conditions, would take several days to liberate. Instead, British prime minister Winston Churchill, returned to the idea of using mobile ports – a concept the British had toyed with for use in the Mediterranean at the start of the war. In May 1942 he wrote to the chief of combined operations, Commodore Lord Louis Mountbatten.

"Piers for the use on beaches: they must float up and down with the tide. The anchor problem must be mastered… let me have the best solution worked out. Don't argue the matter. The difficulties will argue for



themselves." The note resulted in two harbours called Mulberries. These were produced in Britain and transported in kit form across the English Channel. There, they were assembled and anchored alongside Omaha and Gold Beaches.

The breakwater part of the harbours consisted of 146 sunken Phoenix and 70 scuttled ships, which would create shelter for 23 pier-heads (known as Spuds) where ships could dock. These were connected to the land by flexible steel roadways (referred to as Whales) that floated on steel or concrete pontoons (named Beetles). Each Mulberry had around 10 kilometres of these jetties. Production proved so extensive that the British had to build new construction sites, including several dry docks on the Thames and Clyde rivers. More than 300 companies and 40,000 men were involved.

In addition to a massive labour force, it took no less than 252,303 cubic metres of concrete – enough to fill 6,000 swimming pools – and 31,000 tonnes of steel to build the Phoenix. The construction eroded Britain's stockpile of materials, including using every anchor mooring in the country. Due to the lack of solid anchorages, the concrete blocks had to be submerged in British harbours prior to D-Day, just as they would eventually be in Normandy.

Two Phoenix can still be seen off Portland Bill today. The spot is popular with local divers.

STORM DESTROYED ONE HARBOUR

The tugboats that towed the giant breakwaters to Normandy set out early on 6th June in the wake of the troop transports. Bungard remembered the 160-kilometre trip, which lasted 24 hours. On the way, the Phoenix began to leak and started listing heavily.

"It was quite a hairy situation. I had to get down onto the narrow ledge which ran round the caisson's base. In calm weather this would have been about four or five feet above the water, but owing to the list it was well awash, and the massive side of the caisson looked to me like the Leaning Tower of Pisa hanging over me."

The fighting was still raging on the beach when the fleet arrived. Bungard could see the bodies of soldiers in the waves.

"There was a big launch there and men with boat hooks [were] fishing them out of the water and piling them up on the deck."

To make room for the jetty at Gold Beach, military engineers tore down the houses closest to the sea. The former sleepy resort of Arromanches was soon transformed into one of Europe's busiest ports with facilities that took up an area around the same size as the port of Dover.

As planned, once the Phoenix were in position, the crew pulled the plugs from the hollow cassions so that the blocks slowly sank to the bottom. Then, the piers and pontoon bridges were towed into place and secured on the seabed using custom-made anchors that could withstand the extreme rise and fall of the Channel's tides. Two days later, the first tanks, jeeps >>>

Flexible pontoon bridges – called Whales – formed roads that lay on top of the Beetle pontoons, enabling supplies to be driven ashore.

As early as June 1943, engineers had blueprints for the Mulberry harbours.

MULBERRY HARBOURS

MOBILE PORTS SECURED SUPPLY LINE

In spring 1942, British prime minister Winston Churchill gave orders to develop a system of mobile ports off the coast of France. Two years later, the ports were ready to be deployed.

1 Scuttled ships and giant concrete cassions, known as Phoenix, were used as breakwaters. The ships were holed and sunk; the Phoenix were hollow and had 'plugs' that were opened, sending the concrete block to the seabed.



2 Floating pontoons were towed into place behind the breakwaters and fixed to posts knocked into the seabed. The pontoons (called Beetles) could move up and down with the tide.

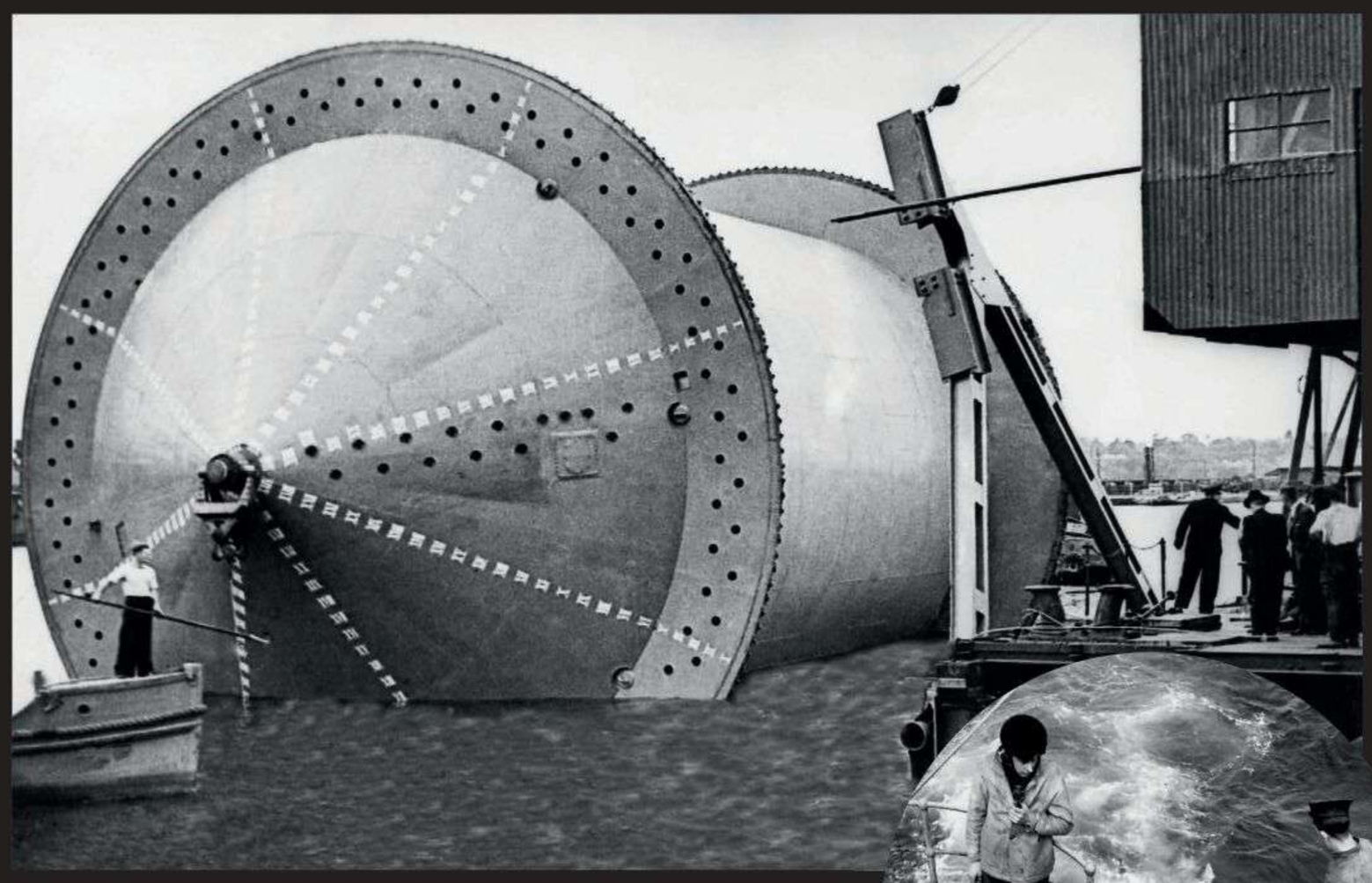


3 Engineering troops bridged the gap between the Beetles with long, floating pontoon bridges that were built from several pieces and flexed in response to the tide. Each bridge was fixed in place with specially made anchors.

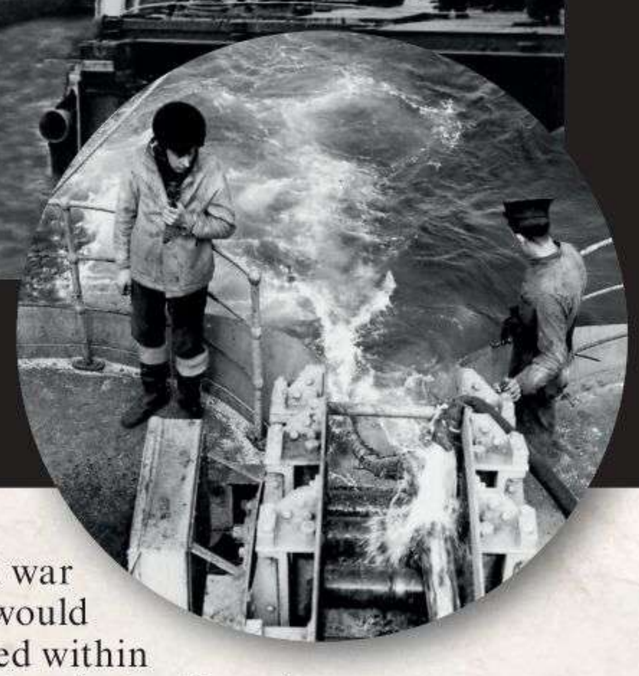




FUEL: the Allies' fuel was delivered via flexible but robust pipes that were manufactured at the Siemens factories in England.



INTO THE WATER: the tubes were wrapped around 10-metre-diameter drums and rolled out across the English Channel using cable-laying vessels sailing at an average speed of 9.3 km/h.



and supplies rolled off vessels and onto the beach. The port operation was complete.

On 19th June, a devastating summer storm whipped over the Normandy beaches. Atlantic waves reached 2.5 metres in height and crashed over the mobile harbours. Mulberry A at Omaha Beach, which was still being used by US forces, was destroyed. In their hurry to erect the harbour, the engineers had only anchored every sixth pontoon bridge. The resulting damage proved so extensive that Mulberry A had to be abandoned.

Mulberry B, which the British had secured with two anchors on each pontoon bridge, came through unscathed. The harbour received ships throughout and even beyond the war, although the port's function was later augmented by the six-wheeled DUKW amphibious vehicles (known as Ducks) that could travel on both land and sea. The Ducks could drive off the ships, land in the water, sail to the shore and drive up the beach. From 12th June to 28th November, 1944, a total of 231,315 men and 45,181 vehicles landed at the Mulberry harbours, the remains can still be seen in the sea off Normandy's beaches today.

1.1 kilometres – the distance a Sherman tank could run on a litre of petrol.

Underwater pipeline

Tanks, jeeps, soldiers and supplies were not enough. Without a reliable supply of fuel, the Allied war machine would have stalled within days. During the landing, the troops required 2,000 tonnes of fuel a day; after five months, an additional 5,000 tonnes was needed each day to keep the invasion alive, meaning that a total of 7,000 tonnes of fuel had to reach the troops every day. Logistics staff realised early on that it would be dangerous to transport fuel in tankers. The only ports deep enough for large tankers were in Antwerp and Le Havre, both of which were in German hands. Sending smaller tankers would be equally risky. German submarines and bombers were a constant threat and could easily sink such ships and the Channel's heavy seas and currents, along with its large tidal ranges added to the threat.

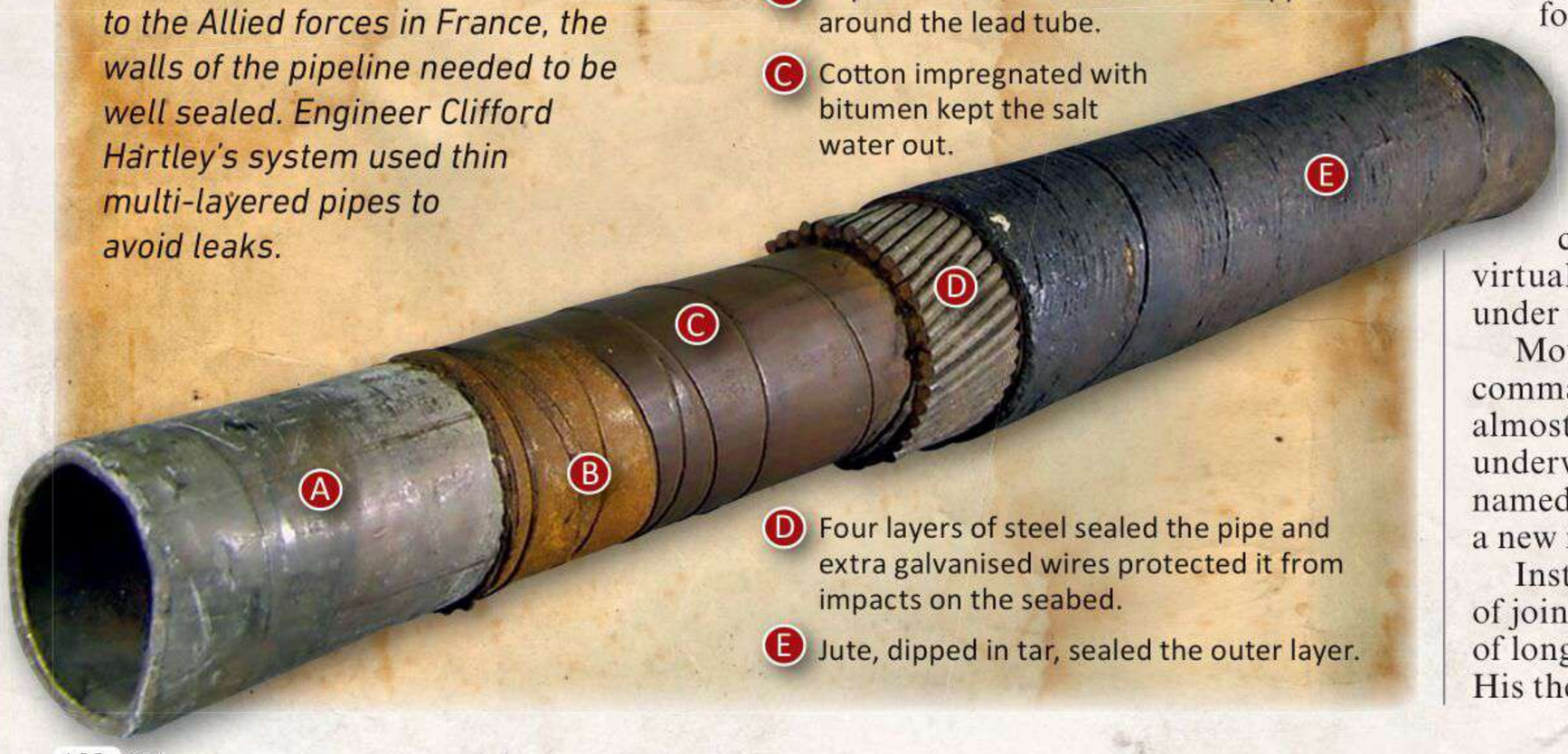
According to Churchill, a secret pipeline under the Channel was the only solution, but his engineers were sceptical. Their experience with underground pipelines – for example, the ones running from the ports and refineries in the West of England to air bases in the south-east – led them to believe that such pipelines were prone to leaking joints that needed to be repaired constantly. Such repairs would be virtually impossible if the pipelines were under the sea.

Mountbatten, who was in overall command of securing the fuel supply, had almost abandoned the concept of underwater pipelines when an engineer named Clifford Hartley presented him with a new idea in spring 1942.

Instead of building thick pipes with lots of joints, Hartley suggested making a cord of long, thin pipes with just a few joints. His theory was so convincing that he was

PIPES WERE BUILT IN LAYERS

In order for the fuel to flow smoothly to the Allied forces in France, the walls of the pipeline needed to be well sealed. Engineer Clifford Hartley's system used thin multi-layered pipes to avoid leaks.



A Fuel flowed inside a lead tube with 0.5-cm walls and a diameter of eight centimetres.

B Paper soaked in kerosene was wrapped around the lead tube.

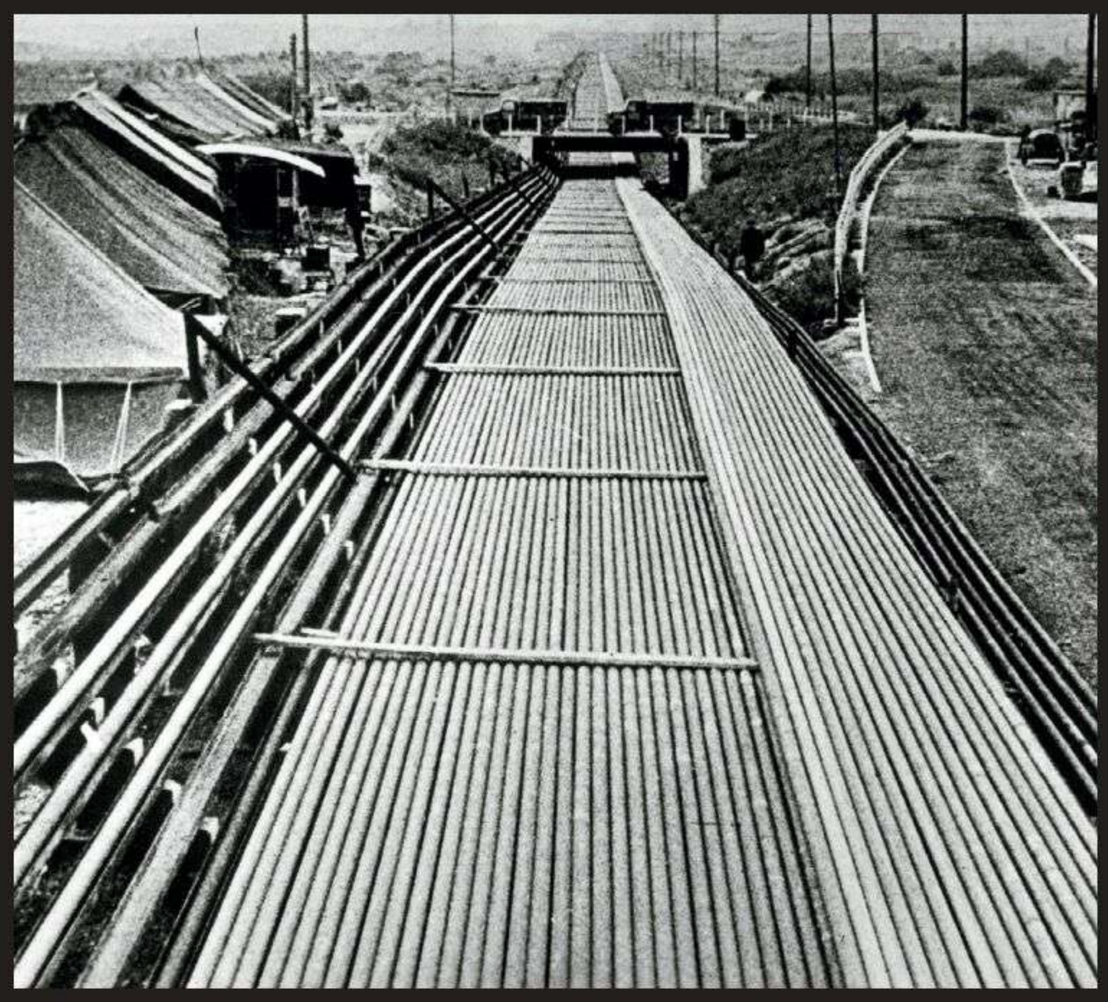
C Cotton impregnated with bitumen kept the salt water out.

D Four layers of steel sealed the pipe and extra galvanised wires protected it from impacts on the seabed.

E Jute, dipped in tar, sealed the outer layer.



ONTO LAND: once the two pipelines, 'Bambi' and 'Dumbo', were successfully laid across the English Channel, the pipeline continued across France to where the Allies' thirsty tanks were waiting.



FINAL LEG: over 650 million litres of fuel flowed from England to France. The pipeline was slotted together lots of long, thin pipes, using an idea proposed by engineer Clifford Hartley.

immediately hired to lead the project – which was codenamed PLUTO (Pipe Line Under The Ocean).

The German company Siemens – which the British had seized in 1914, and which now served Britain's arms industry – began manufacturing the pipes. The pipes were built up in layers. The innermost layer consisted of a lead tube, which had a 0.5-cm thick wall and an internal diameter of just eight centimetres. Around the lead tube, the engineers wrapped a layer of paper dipped in kerosene, then a layer of cotton strips impregnated with the bitumen, which shielded the lead pipe from corrosion in the salty seawater. The cotton strips were sealed with four thin layers of steel and protected by galvanised wires. The outer layer was made up of strips of jute, soaked in tar. A slightly more robust steel pipe that could be laid across the deepest part of the Channel was created by other companies. The strong but flexible pipes weighed 30 tonnes per kilometre.

Ice-cream shops fooled Germans

The finished pipeline was wrapped around giant drums enabling *HMS Holdfast*, a specially modified cable-laying vessel, to draw it across the Channel. Because of the fighting on the Normandy coast, the crew tasked with laying the pipeline had to wait until 12th August before the ship could sail from Hamble-le-Rice in Hampshire to begin its mission.

The engineering forces suffered several setbacks before they could finally pull an intact pipeline up onto the Cherbourg peninsula in France. This included one of the destroyers tasked with protecting *HMS Holdfast* fouling the pipeline with its anchor, meaning that the work had to start over. On another occasion, just as the crew was about to finish, the pipeline started leaking and had to be repaired.

Once the first pipeline was established between Shanklin Chine on the Isle of Wight and Cherbourg in Normandy, the British started work on a second pipeline between Dungeness in Kent and Ambleteuse, near Calais in France.

Protecting the pumping stations in England was another challenge. As the beating heart of the fuel supply, they would be obvious targets for German bombs. The British, therefore, decided to hide the pumps. In holiday towns on the Isle of Wight and the English south coast, buildings of all sorts – from ice cream shops to holiday homes – were converted to pumping stations. Yet more pumps were camouflaged by fake mounds or concealed in old fortifications.

In September, the British finally opened the taps and fuel flowed through the first line, which was codenamed 'Bambi'. The following month, the second pipeline – 'Dumbo' – became operational. The piped fuel had been eagerly awaited on the French coast, where thirsty military vehicles had been relying on refills from small tankers since D-Day.

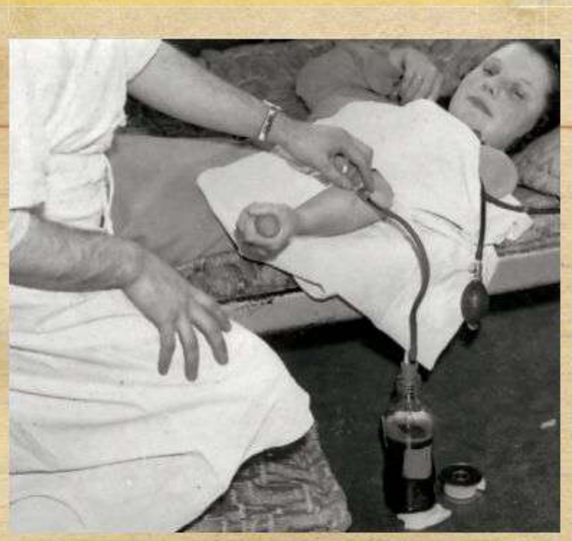
Even after the Allies liberated the deep ports at Le Havre and Antwerp, the fuel continued to flow through 'Bambi' and

SECRET PIPES TOOK FUEL TO THE FRONT



■ *British and US tankers transported fuel to ports in the West of England, from there it passed through secret, underground pipelines to the south coast of England. The 'Bambi' pipeline took the fuel from Hamble, near Southampton, to Cherbourg; 'Dumbo' ran from Dungeness to Ambleteuse. The Allies extended the pipeline over land as they advanced.*

TECHNOLOGY..... CULTURE..... ECONOMY..... EVERYDAY.....



New blood saved soldiers' lives

Medical innovations gave doctors and nurses new opportunities to save lives. Blood transfusion techniques had improved considerably in the run up to WWII. Doctors had learned how to separate blood plasma from red blood cells, enabling them to freeze the plasma and conserve it for several weeks. A new system for determining an individual's blood group ensured that the wounded received the right blood type, increasing survival rates.

'Dumbo'. The pipeline system was even extended: by the end of the war, it reached as far as the Rhine. In total, PLUTO delivered more than 650 million litres of fuel to the Allied troops.

Chocolate kept soldiers alive

It wasn't just the vehicles that needed fuel – the soldiers did, too. The airborne troops, who parachuted into Normandy ahead of the main invasion force, carried a heavy pack and therefore only brought enough food for the first two to three days. Their K-rations, which were intended to be eaten in place of meals, consisted of high-calorie food such as canned meat and cheese, biscuits and sugar as well as powdered stock and tablets to keep the body's salt levels balanced. Each meal was compactly packed in a small, colour-coded cardboard box, which listed its contents.

Each soldier was also equipped with two D-rations, each of which contained a super-dense, high-calorie chocolate bar. The chocolate was intended as an emergency supply, and in order to ensure that the soldiers didn't snack on it, Hershey, the manufacturers, produced a bland-tasting chocolate bar , specifically "a bar weighing about four ounces, able to withstand high temperatures, high in food energy value, and tasting just a little better than a boiled potato".

All the Allied soldiers who landed in Normandy carried supplies for 24 hours. Food for another eight days was stowed on board the ships and, as soon as it was safe, field kitchens were established on the beaches. Although hot meals required more work than pre-packaged rations, the army tried to cook whenever possible - a hot meal could re-energise an exhausted soldier and make him fit for battle.

As the Allied troops fought through France, a chain of lorries and transport aircraft followed on their heels. The Douglas 'Dakota' C-47 aircraft was used to bring supplies to the front during the invasion of Normandy. The aircraft were equipped with reinforced floors and wide load doors for the operation.

Flying Nightingales tended sick

After flying ammunition and supplies into France, the C47s were loaded with wounded men, who could not be treated by army medics, but needed to be flown to England for specialist care. As air ambulances, the Dakotas could transport 14 patients on stretchers and three nurses. The nurses who flew on these missions became known as "Flying Nightingales" after the pioneering nurse Florence Nightingale.

On the flight back over the English Channel, the Nightingales helped stabilise patients before transferring the wounded to British doctors. The air ambulances were equipped with plasma for blood transfusions, oxygen, morphine and various dressings to staunch the flow of blood.

The majority of the patients on board were severely injured. The then 23-year-old nurse Elsie Beer recalls a man who had been hit in the face.

"The soldiers would all ask for cups of tea, and I remember one man saying he wanted a drink, but he couldn't, because he didn't have a mouth. That part of his face had just disappeared."

Often the nurses' lives were at risk and few signed on for more than six month's service at the front. Because the Dakota planes carried weapons and ammunition on their outbound trip from England to France, they couldn't display the Red Cross symbol and often came under fire from the *Luftwaffe* (German Air Force). On her first flight, Beer's air ambulance came under fire. Shrapnel from the shells smashed the plane's windows, but the pilot somehow managed to land and no-one was injured.

Like all crew members, the nurses were given parachutes, but were ordered to stay with the plane if it was shot down, in order to care for anyone who survived the crash. The perilous work had some benefits, though.

"We got an extra 8p a day, and on days we were flying we were allowed an orange, two packets of chewing gum and a barley sugar" recalled Lillian Bancroft, another nurse on the air ambulances.

By the end of June 1944, the Flying Nightingales had tended to 1,092 stretcher cases and 467 other wounded.



The nurses' morphine kit helped dull the pain of soldiers wounded at the front in France.

German tanks ran dry

Once the Allies established field hospitals in France, the type of patients in the Dakota aircraft changed. Instead of newly wounded men in dirty, blood-soaked uniforms, the nurses now treated clean and dressed men who were flown to Britain to undergo particularly demanding treatments or to recover from serious injuries. From D-Day until the end of the war, the Dakotas flew 100,000 patients across the Channel.

The Allies' enormous logistical effort on and after D-Day paid off. While oil, petrol, equipment and supplies flowed to the Allied troops in France, the German war machine was running on empty. In order to save the last drops of petrol for battle, in December 1944, the German armed forces issued orders that only horse-drawn carriages could bring supplies to the front. The lack of spare parts for German vehicles meant that tanks and artillery often had to be withdrawn from the front line, and the troops spent hours making emergency repairs.

In January 1945, the Germans had to abandon any idea of a counteroffensive, while the Allied troops rolled steadily east – and steadily on towards Berlin. ■



Prior to D-Day, engineering corps were housed in tents near the English south coast. They were crucial to the enormous logistical challenge of supplying front-line troops.

Nurses were trained in evacuation manoeuvres in the lead up to D-Day. They treated thousands of wounded soldiers on their way back to Britain.



"The air ambulances were equipped with plasma for blood transfusions"



GERMAN DEFEAT IN EAST

1944

On 22nd June, 1944, Soviet troops swarm into the forest and marshlands at the front in Belarus. Stalin has launched Operation Bagration, a massive summer offensive designed to break the neck of Hitler's strong Army Group Centre. The army group is the Germans' last powerful force on the Eastern Front, and the Russians hope to end it by increasing the pressure on Nazi Germany after the Allied landing in Normandy. The mighty Red Army has received its orders to march. Ahead of the Germans lies a defeat with huge consequences.





1944

22nd June Operation Bagration by the Red Army in Belarus.

22nd June Germans in the city of Vitebsk surrender.

29th June Soviet forces cross Bobruisk marshes and take the city.

1st July Soviet tanks and infantry traverse the Berezina river.

3rd July The Red Army liberates Minsk after a day's fighting.

9th July Organised resistance in the German 4th Army breaks down.

1944 »»

"A thundering within my skull." This was how Armin Scheiderbauer described the explosion that shook him from an uneasy sleep in a trench near Vitebsk in the early hours of 22nd June, 1944. Wearily, the 20-year-old German adjutant came to his senses. The evening before, the officers had made merry, and when the Red Army's attack began Scheiderbauer had only had an hour's sleep. Shells whistled through the air, while Scheiderbauer's head was sore from fatigue and too many schnapps.

The young adjutant would have more – and worse – worries than simple hangovers. The bang that woke him that morning signalled the start of the huge Soviet offensive, Operation Bagration. Its aim was to smash Army Group Centre, the solid backbone of the German forces on the Eastern Front. Scheiderbauer would never again see many of the men he'd drank with the evening before.

The operation's start time and date – the early hours of 22nd June, 1944 – was symbolic. Exactly three years earlier, Hitler's forces had invaded the Soviet Union and triumphantly swept across the Russian steppes. Much had changed since then. After the disastrous battle at Stalingrad in the winter of 1942-43, the Germans had been forced on the defensive on the Eastern Front. The Germans held steadfast at only one section along the entire front: in Belarus stood *Heeresgruppe Mitte* (Army Group Centre), a mighty force of around one million men. This massive army group had to be rendered harmless if the grandiose Allied operation in Normandy was to succeed and Hitler's regime shattered.

Stalin named Operation Bagration after Russian general Pyotr Bagration who defended Moscow in 1812.

Soviets tricked Germans

The operation was part of an agreement with the Allies to attack Nazi Germany from two fronts – the Allies from the west via D-Day and the Soviet Union from the east. Where and when the operation would be deployed, however, remained a state secret not even shared with London and Washington. On 6th June, 1944, Stalin wrote a cryptic message to Churchill:

"The summer offensive of the Soviet forces… will begin towards the middle of June on one of the important sectors of the front." The Red Army's intelligence was aware the Germans knew something was afoot, but Army Group Centre had no idea where any attack would take place. In fact, German High Command was convinced the Soviet forces would attack Ukraine. The Red Army's commanders seized the opportunity and launched a *maskirovka*, a military deception designed to convince the Germans of their mistaken belief. Soon Soviet vehicles with men and equipment filled the roads to the south. What the Germans didn't know was that even more extensive traffic was travelling under cover of darkness in the opposite direction. Every night between 22.00 and 04.00, trucks and tanks, camouflaged and with lights extinguished, drove towards Belarus. White markers on the roadside helped drivers stay oriented, and those who failed to reach their destination before dawn had strict orders to pull over to the roadside and hide their vehicles. Soviet reconnaissance aircraft regularly flew over the Soviet columns to make sure nothing was visible from the air. If a pilot spotted anything, he dropped a pennant from the plane. If a commander received a pennant, it meant he needed to tighten security immediately.

The Red Army was helped partly by Army Group Centre's lack of reconnaissance aircraft and partly by German High Command's refusal to accept reality. The Luftwaffe's reserves were

KEY MOMENTS

HITLER INVADED THE SOVIET UNION

On 22nd June, 1941, Hitler sent his hitherto victorious troops over the border into the Soviet Union – a decision that would prove fatal. After several early victories, the Wehrmacht ground to a standstill in the face of a harsh Russian winter and self-sacrificing Red Army. The Battle of Stalingrad during the winter of 1942-43 was the turning point, and subsequently one German defeat followed another.



A Soviet commander briefs the pilots in his squadron of Ilyushin Il-2 strike planes before a mission over the Vitebsk area.

depleted after three years of exhausting war on the Eastern Front. At the same time, both command and intelligence refused to listen to the soldiers in the field. They were aware in mid-June that the Soviets had military plans in Belarus. A week before the start of the operation, a German battalion commander told XXXIX Panzer Corps commander Robert Martinek of the threat during a tour of inspection. Martinek was readily convinced, but at the same time was forced to admit his concerns would never be heard higher up.

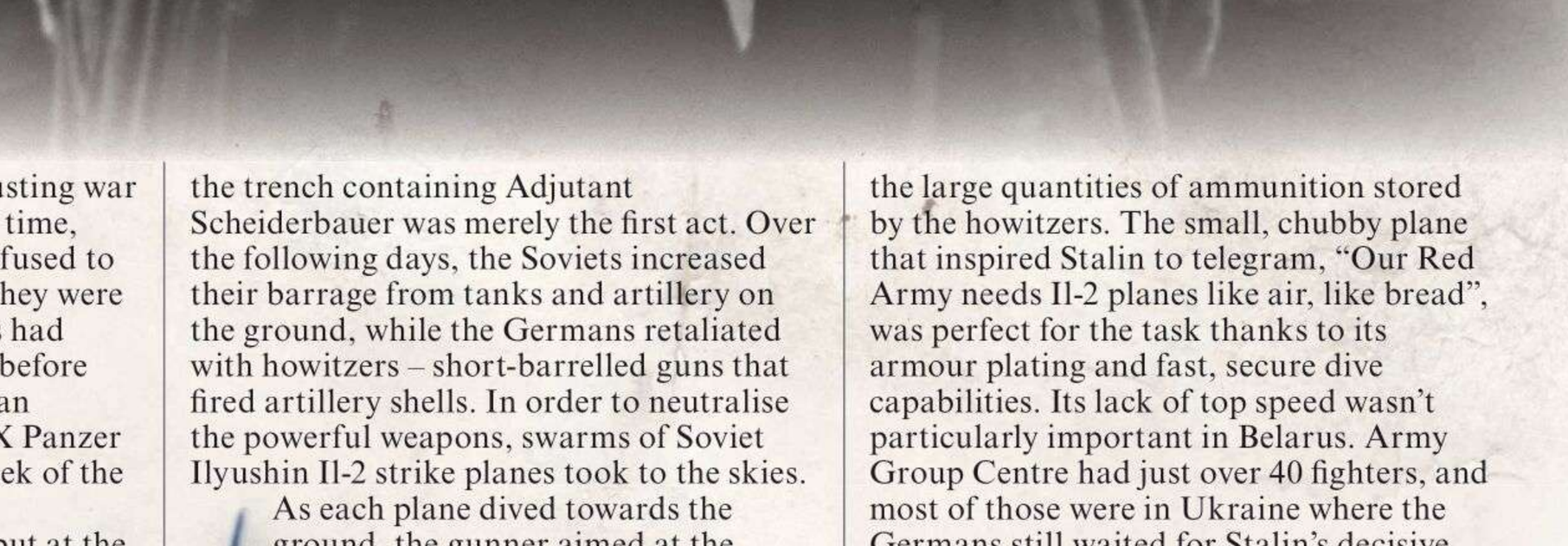
"Whom God would destroy, he first strikes blind," he replied resignedly.

Airspace under Soviet control

His words were prophetic, because Operation Bagration would mark the beginning of the end for the Germans. The hail of shells over the trench containing Adjutant Scheiderbauer was merely the first act. Over the following days, the Soviets increased their barrage from tanks and artillery on the ground, while the Germans retaliated with howitzers – short-barrelled guns that fired artillery shells. In order to neutralise the powerful weapons, swarms of Soviet Ilyushin Il-2 strike planes took to the skies.

As each plane dived towards the ground, the gunner aimed at the howitzer crews with their machine guns. At the same time, the plane dropped bombs and fired missiles at the large quantities of ammunition stored by the howitzers. The small, chubby plane that inspired Stalin to telegram, "Our Red Army needs Il-2 planes like air, like bread", was perfect for the task thanks to its armour plating and fast, secure dive capabilities. Its lack of top speed wasn't particularly important in Belarus. Army Group Centre had just over 40 fighters, and most of those were in Ukraine where the Germans still waited for Stalin's decisive strike, days after Bagration's start. The Red Army controlled the skies.

Soon the same thing happened on land, for aircraft were not the only thing Army Group Centre lacked. There were 5,000 tanks available to the Germans on the



The Soviet Ilyushin Il-2 was dubbed the "Flying Tank" and was a strike plane intended to hit infantry and tanks on the ground.

SOVIETS CRUSH ARMY GROUP CENTRE

MAJOR OFFENSIVE IN BELARUS

Stalin launches Operation Bagration in June 1944. Hitler is under attack in both Normandy in the west and from the Soviets in the east.



1: RED ARMY ATTACK THE GERMAN FLANKS



The main thrust of Operation Bagration is targeted at the front line east of Minsk. The Soviets break into Army Group Centre's flank at Vitebsk on 22nd June, and on 24th June launches another attack from the marshlands around Bobruisk. Vitebsk falls on 27th June, and Bobruisk two days later.

2: GERMANS FLEE OVER BEREZINA



On 1st July, German forces begin to retreat over the Berezina river. The Red Army has already crossed the river north and south of the city of Borisov, and the Germans haven't established a line of defence. German panzer reinforcements from Ukraine can only slow down the Red Army with sporadic ambushes.

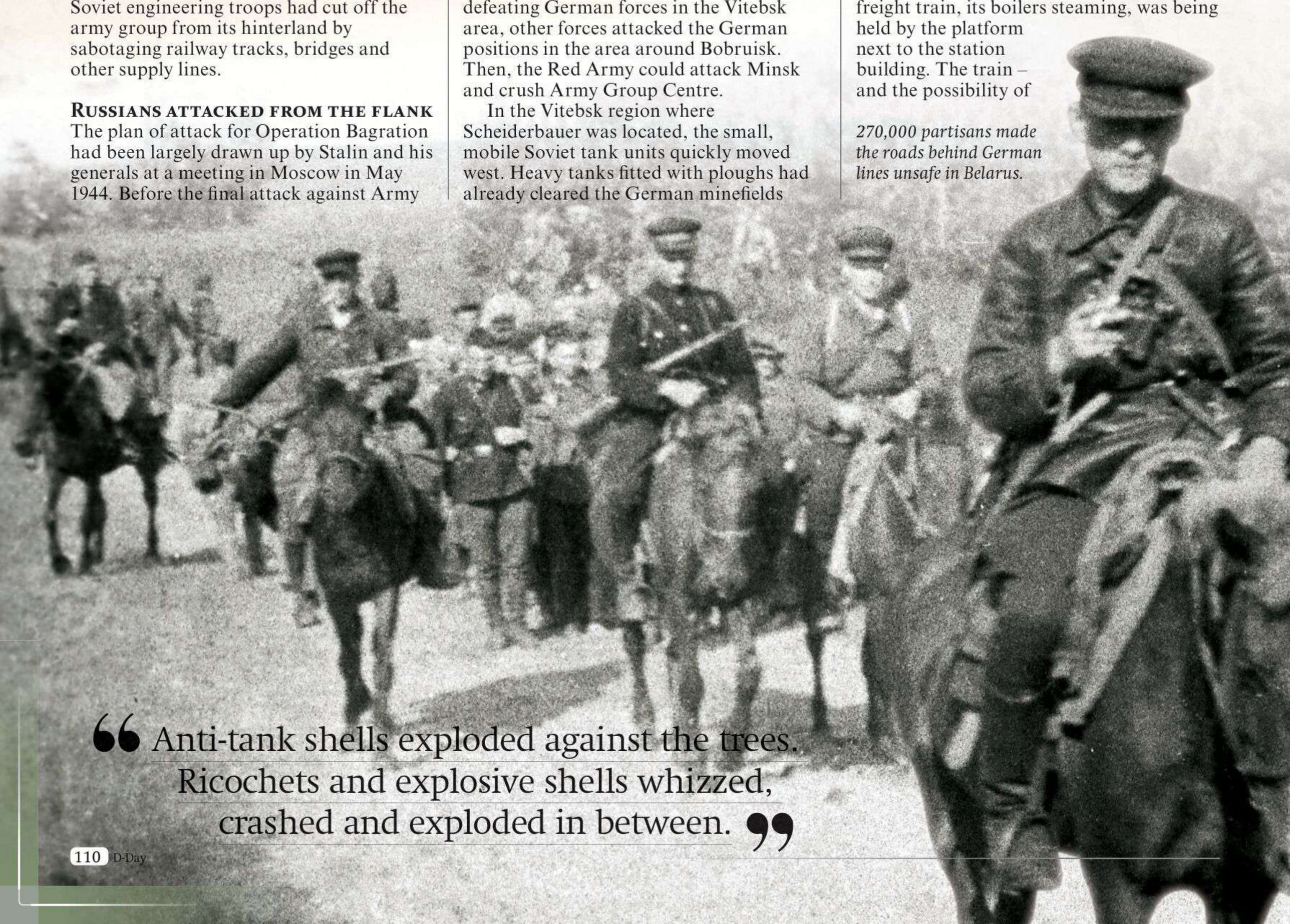
Eastern Front, but fewer than 600 were in Belarus. Food, ammunition and other equipment were also in short supply. Two nights before the start of the operation, Soviet engineering troops had cut off the army group from its hinterland by sabotaging railway tracks, bridges and other supply lines.

RUSSIANS ATTACKED FROM THE FLANK

The plan of attack for Operation Bagration had been largely drawn up by Stalin and his generals at a meeting in Moscow in May 1944. Before the final attack against Army Group Centre in Minsk, two Soviet army units would be deployed to neutralise the army group's flanks. These aims would be achieved by Soviet troops encircling and defeating German forces in the Vitebsk area, other forces attacked the German positions in the area around Bobruisk. Then, the Red Army could attack Minsk and crush Army Group Centre.

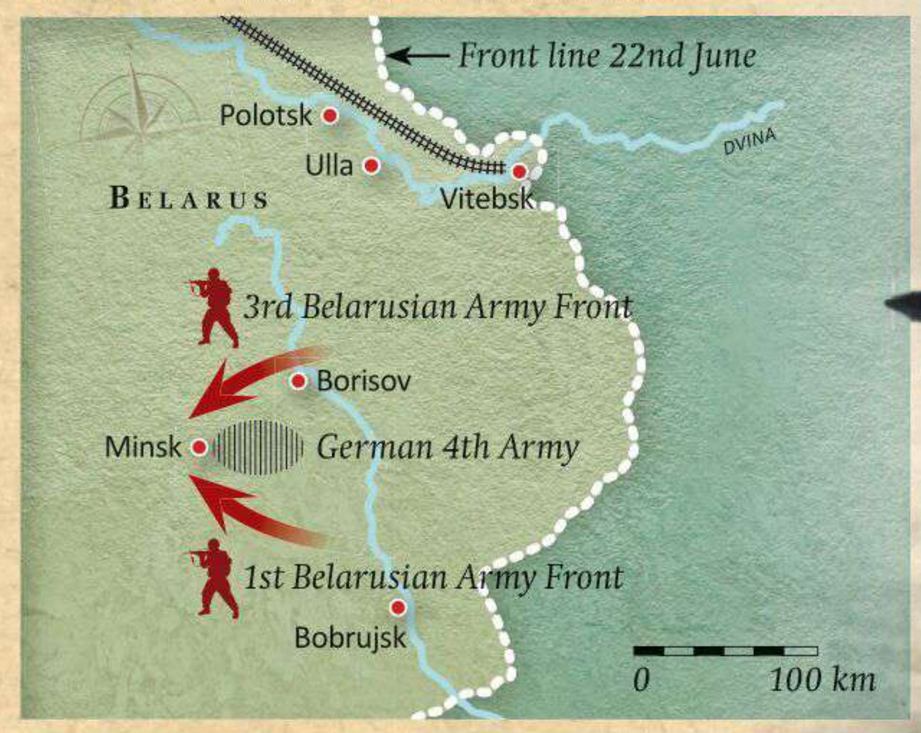
In the Vitebsk region where Scheiderbauer was located, the small, mobile Soviet tank units quickly moved west. Heavy tanks fitted with ploughs had already cleared the German minefields during the initial bombardment. After two days of fighting, Scheiderbauer's unit was forced back to the Vitebsk-Polotsk railway line, which they were set to defend. A freight train, its boilers steaming, was being held by the platform next to the station building. The train – and the possibility of

270,000 partisans made the roads behind German lines unsafe in Belarus.



> "Anti-tank shells exploded against the trees. Ricochets and explosive shells whizzed, crashed and exploded in between."

3: THE RED ARMY RETAKES MINSK



At dawn on 3rd July, Soviet tanks and soldiers flow into Minsk defeating German defenders. The Red Army has overtaken the Germans' retreat and enclose an estimated 150,000 men from Army Group Centre's 4th Army in a pocket east of Minsk. German resistance in the pocket breaks down on 9th July.

The Soviets controlled the air. 2,100 bombers, 2,300 fighters and 1,700 dive bombers struck the German troops on the ground.

getting away – attracted the soldiers like a magnet. Despite officers' orders and expletives, soldiers with Soviet bullets whistling past their ears rushed to the wagons and climbed aboard. What the officers failed to accomplish was delivered by Soviet artillery. The train had barely set off before a well-timed shot from an anti-tank gun took out its boiler. Frightened soldiers jumped off from both sides and ran along the railway track away from the enemy's shells.

GERMANS DROWNED IN WILD FLIGHT

Despite the catastrophic lack of equipment, the Germans fought fiercely. A few days after the attack, Scheiderbauer's division was ordered to reoccupy Labeiki, which had fallen into Soviet hands.

"We had to it without artillery, without assault guns, or any other heavy weapons to support us, without even adequate information concerning the strength of the enemy, but with only 'Hurrah' and the 'moral' support of the night," the young adjutant recalled. But neither hurrahs nor the darkness proved much help. When the Soviets discovered an attack was coming, they lit up the sky with signal flares and mortars, revealing the Germans' movements. At a small cluster of pine trees, the group of soldiers halted, kept at bay by a Soviet barrage and unable to continue the counterattack.

"Anti-tank shells exploded against the trees. Ricochets and explosive shells whizzed, crashed and exploded in between. It was a noise that could not be drowned out by men's voices. The darkness of the wood was lit briefly and spectrally by tracer ammunition. When the magnesium glow of flares had gone out, the blackness of the wood by night surrounded us all the more profoundly," Scheiderbauer said of those horrific hours. Soon the Germans were on the run, heading for the village of Ulla, where a bridge led west over the Dvina river. By the time the order for withdrawal finally came, the Germans were already retreating. On the way to Ulla, horrific scenes were unfolding:

"I saw baggage wagons with galloping horses, motorised vehicles of all kinds, and among them soldiers rushing on foot. The vehicles were loaded with men and material. Obviously behind them Russian tanks were coming. The rumbling reached our ears. Those who were fleeing were driven before them. The picture of the flight, the approaching enemy tanks, firing their cannons and machine guns, swept the remnants of the battalion along in panic," Scheiderbauer later wrote.

With the Red Army at their heels, what was left of Scheiderbauer's unit was unable to reach the bridge. Instead, the men chose to throw themselves into the Dvina, where many drowned or were shot by Soviet soldiers on the bank.

"Men who could not swim were hanging like grapes on men who could and dragging them down into the depths. Swimmers were pulling wounded men across the river and trying that several times until their strength was exhausted. Watery death reaped a rich but cruel harvest. On the morning of the next day on the road there appeared individual naked men, who were carrying nothing but a weapon. Everything was done to get these men fresh clothes, if only so they could join in the fighting again," the division's records stated.

Scheiderbauer survived the horrors at the Dvina river and was sent west by train in a wild race with the Soviet forces.

6,100
combat aircraft were available to the Soviets versus Army Group Centre's 840 planes.



The Russians used flare guns to illuminate the night sky and prevent German counterattacks.

SOLDIERS MOWED DOWN FROM THE AIR

As Scheiderbauer's train rumbled west, the fortified city of Vitebsk surrendered after five days of hard fighting.

Meanwhile, other sections of the Red Army attacked Bobruisk, a city about 150 kilometres from Minsk. The town was surrounded by a wet and swampy landscape, which was very difficult to cross. In preparation for the attack, the soldiers had trained building improvised rafts and moving on so-called "marsh skis", developed specially for marshy ground. In the days before the attack, engineering troops also built wooden roads and dams to allow the Soviet forces and vehicles to pass through, allowing them to suddenly and without warning emerge from the swampy terrain. Surprise attacks with heavy tanks were supplemented by air strikes.

Soviet general Alexander Gorbatov recalled how, once it grew dark, he could hear the growing sound of planes on their way to attack enemy positions. Wave after wave passed over, shortly before hundreds of explosions lit up the air with fountains of fire. The constant flyovers unnerved the Germans – one German field report

MEANWHILE IN THE PACIFIC



US LANDED ON SAIPAN

While Stalin's army forced the Germans' retreat in Belarus, US forces landed on the Japanese-occupied island of Saipan in the Pacific. The island was important because the US could send B-29 bombers from here to Japan. The Japanese soldiers fought to the last man in the mountainous and jungle-covered terrain. Defenders concluded with a suicide attack, in which 3,000 Japanese people rushed forward with loud cries and swords raised. Almost all of the Japanese fell in the battle or committed suicide after the defeat on 9th July.

>>>> described how the fear of Soviet pilots became so agonising that men threw themselves under cover at the slightest noise – even the sound of a lone German Storch reconnaissance plane.

For one group of soldiers, their worst nightmares became reality when they were caught at a junction at Titovka. While they sat helpless in their tanks and vehicles at the crowded junction, swarms of planes repeatedly dived low over them, spewing a fierce barrage of bullets and shells.

MINSK WAS LIBERATED

Those few soldiers who escaped from the attack in Titovka were spared partly because the Red Army was already redirecting its forces to the key part of the operation: the campaign to liberate Minsk. After taking Bobruisk on 29th June, the Soviets now looked to direct their fire on Army Group Centre's important 4th Army, defending Minsk. As Soviet forces closed in, they saw signs that Hitler and the German High Command had finally realised what was happening. Tank units had been diverted from Ukraine to Belarus and were now attempting to ambush the Red Army in the hopes of halting its advance. The tactics failed, however – the units were scattered and too few in number. The attacks only delayed the Soviet units for a few hours.

The net closed quickly around the 4th Army. As the Red Army approached, the Germans retreated towards the Berezina river. However, the Soviets had already secured this by occupying the river crossings north and south of the city of Borisov. It made the crowded German troops easy prey for Soviet artillery and air strikes.

> **"The Soviets** also transported around 55,000 men to Moscow on crowded trains and forced them on a grotesque march through the streets"

The XXXIX Panzer Corps reported on 1st July that it could enter the forest near Berezina after heavy air shelling. But traffic jams on the small forest roads were such that movement became so restricted that they barely moved metres over several hours. In that time, most of the corps' strength was lost.

RUSSIANS WIPED OUT ENTIRE ARMY

Whole German divisions still had to cross the Berezina as Soviet tanks rolled into Minsk early in the morning on 3rd July. Armoured units from the Red Army had overtaken the Germans during their chaotic retreat and now occupied the city after only one day's fighting. Large numbers of German soldiers from the 4th Army found themselves trapped in pockets east of the city. Several units attempted breakouts and many skirmishes and small battles were fought as groups containing several thousand men attempted to move away from the city to the west. After a few days, however, those still trapped in pockets began to run out of food and ammunition. The 4th Army divided into smaller groups. These small units in turn were vulnerable to both Red Army soldiers and partisans operating in the area. On 9th July, organised resistance had largely been defeated. The last small groups and individual soldiers hiding in the forests outside Minsk were captured by Soviet special forces comprising infantry and tanks at the end of July. Few escaped. Historians estimate that out of the 150,000 soldiers from the 4th Army trapped in the pockets east of Minsk, only around 900 made it back to German lines.

PRISONERS OF WAR WERE HUMILIATED

Overall losses for Operation Bagration are unknown, but historians believe that Germany lost 25-30 divisions during the operation, 17 of which were destroyed. The total figure amounted to around 350,000 soldiers, of whom 150,000 ended up in Soviet captivity. Half of the prisoners of war died on the long journey to

Soviet infantry storm a destroyed German tank to disarm the tank crew.



SUCCESS: Soviet children celebrate the Red Army's progress from the top of a destroyed German Tiger I tank. Soviet tanks and planes were superior, and they quickly won.



RETREAT: the Germans' rapid retreat meant there was no time to evacuate prisoners. In a concentration camp near Borisov, civilian Soviet prisoners were cynically mowed down before the German guards left camp and fled west.





Soviet compass needles pointed in only one direction: west.

prison camps or later from malnutrition or disease. The Russians also transported around 55,000 men to Moscow on crowded trains and forced them on a grotesque march through the streets. Unwashed and unshaven, some of them in sandals hastily made from car rubber, the prisoners of war were paraded on 17th July through the capital's streets, while the city's war-weary citizens mocked them. To complete their humiliation, the miserable procession ended with a spray-cleaning machine that symbolically washed the dirt of fascism from the Soviet capital's pavements and roads. The survivors of Army Group Centre were sent to Stalin's gulags and were only allowed to return to Germany in the mid-1950s.

Soviet casualties were also high. Historians estimate that the Red Army's combined losses were around 180,000 dead or missing, and over 500,000 wounded. Stalin's huge campaign against Army Group Centre in Belarus had achieved the same result as the Western Allies in Normandy: Hitler's army had been broken and the road to Berlin now lay open.■





DEFEAT: Around 150,000 German soldiers from Army Group Centre were captured during the Soviet offensive. They kicked up dust in long columns on the dirt roads as they headed towards Stalin's desolate camps in Siberia.



LIBERATION: One of Operation Bagration's main aims was met on 3rd July when Soviet tanks roared into Minsk and drove out the German occupying forces. The day has since been celebrated as Belarus's Independence Day.


124453
LC D



NEXT STOP: PARIS

1944

Once the Allies gained a foothold in Normandy, the invasion ground to a halt for almost a month. But when they finally broke out from the bridgehead on 25th July, it was with tremendous force. A record number of bombs rained down over the Germans, and entire regiments were wiped out. It was time to pave the road to Berlin, but General Charles de Gaulle pushed for the liberation of Paris first. The situation came to a head in August, when a general strike was followed by an armed uprising against the Germans in Paris. The risk of a bloodbath was so great, it was decided to liberate Paris first; then take Berlin.

1944

25th July The breakout from Normandy, Operation Cobra, begins.

1st August General Patton starts liberating Brittany.

15th August French army lands in southern France.



19th August Uprising and street fighting against the Germans in Paris.

25th August French and Allied troops enter Paris.

1944

The first thing the German soldiers heard was the ear-splitting sound of aircraft speeding through the skies above them. It was something they knew and had heard plenty of times before – unlike their own Luftwaffe, which was perceived all too rarely. But this time the sound was all-encompassing. It was 10.00 on 25th July, between the villages of Saint-Lô and Périers in Normandy, France, when all hell broke loose.

It began with 550 P-47 Thunderbolt fighter-bombers. They'd been responsible for the sound and now the Germans could also feel them. The aircraft launched rockets against the German positions, bombarded them with machine gun fire and dropped 250-kg bombs from a very low altitude.

War correspondent Ernie Pyle, who was just 800 metres from the impact, wrote a letter home:

"Everywhere we looked separate groups of planes were on the way down, or on the way back up, or slanting over for a dive, or circling, circling, circling over our heads, waiting for their turn."

However, this was just the beginning. After 20 minutes, the P-47s retreated and the already hard-hit Germans barely had time to breathe a sigh of relief before a new sound reached them: the deep drone of no less than 1,500 large bombers. They arrived in flights of 12, and Pyle said: "I had the feeling that even had God appeared beseechingly before them… they would not have had within them the power to turn from their irresistible course."

Not all bombs hit their target. On 24th July, 111 American soldiers were killed, and 490 wounded by their own aircraft.

16,000 TONNES OF BOMBS IN ONE DAY

Lieutenant General Fritz Bayerlein, commander of the Panzer Lehr Division, described the overwhelming air bombardment "like a conveyor belt" of destruction. The approximately two-kilometre-wide stretch of German front line targeted by the carpet bombing was transformed into a lunar-like landscape.

Bomb craters and German corpses overlapped each other alike. Bayerlin's first report to German High Command explained the situation briefly:

"I lost at least 70 percent of my troops, out of action – dead, wounded, crazed, or numbed".

Even then it wasn't over. On the tail of the heavy bombers, another 350 P-47s followed in an attack lasting 20 minutes, carrying a brand new type of weapon in its US arsenal: napalm bombs. At thesame time a barrage of 396 twin-engined Marauder bombers attacked the German support forces behind the front line. In total, 16,000 tonnes of bombs and artillery shells were dropped. It was the greatest use of explosives during a single attack in the history of the US Army.

When Major Joachim Barth, commander of one of Bayerlin's panzer divisions, finally crept out of his bunker, "the world had changed," he noted with a heavy heart.

"There were no leaves on the trees… We had wounded, we needed medics, but no ambulances could come forward. Our big guns had been tipped over".

Even German soldiers, who had not been hit by explosives, were bleeding from the nose, ears and mouth because of the sound and air pressure from the many bombs. And yet they had to prepare for more.



War correspondent Ernie Pyle followed the US forces through France. He was killed by a Japanese machine gun salvo in 1945.

WHOLE DIVISIONS KILLED

Both Barth and his superiors had worked out that following the massive bombardment land forces would attack. And they were right.

What they had just witnessed was the beginning of Operation Cobra, as named by General Omar Bradley, commander of US invasion forces in France.

After almost two months of waiting, he would now – by any means possible – break out from Normandy and start the march towards Germany, Berlin and Hitler.

The operation was a complete success after just one day. The German line had been broken, the road to Berlin opened and the German defences had been battered by the air bombardment.

After direct pressure from Hitler, the German commander in France – Field Marshal Günther von Kluge – ordered that no man should leave his position. Bayerlein replied with a now-famous and very desperate response:

"Out in front everyone is holding out. My grenadiers, my engineers and my tank crews – they are all holding their ground. Not a single man is leaving his post. They are lying in their foxholes mute and silent, for they are dead. Dead. You may report to the field marshal that the Panzer Lehr Division is annihilated."

THE FIRST MONTH WAS TOUGH

Allied troops needed Operation Cobra to be a success. Although the landings on 6th June had gone relatively well, subsequent

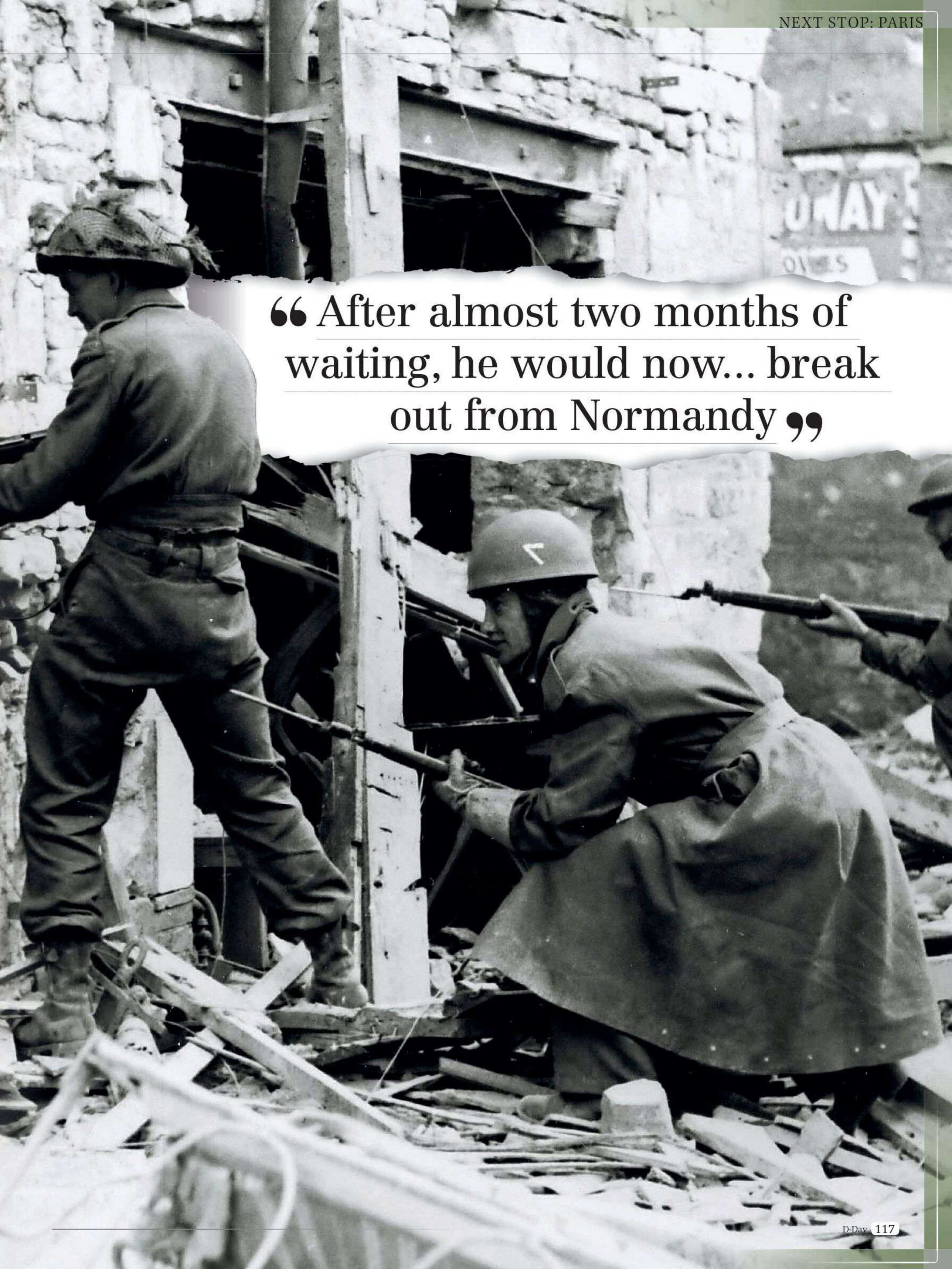
After almost a month's fighting, the Allies finally captured Caen, when the city was scoured house by house for German snipers.

KEY MOMENTS

PINCER MOVEMENTS AT THE FRENCH TOWN OF FALAISE

On 20th July, Hitler ordered an attack on the advancing Allied troops. The Allies discovered that they could trap about 80,000 of the German soldiers in a pocket behind them, and encircled them. The Germans retreated, and around half escaped through a 15-kilometre-wide pocket between the towns of Argentan and Falaise. But 10,000 Germans were killed and 30,000 taken prisoner.





“After almost two months of waiting, he would now... break out from Normandy”

> “Allied progress was... one metre at a time and there were many losses”

progress had been disappointing. After a month in France, they had only secured a very small bridgehead on the Cotentin Peninsula, and were far behind the schedule set by the generals before D-Day. It wasn't until 9th July, for example, that the city of Caen was captured, whereas it had been expected to be under Allied control within a few days as the city was no more than 10-15 kilometres from the invasion beaches.

Part of the explanation was poor planning. It had taken far too long to organise the invasion force and put it in position. The main reason, however, was that German resistance, after a hesitant start, had stepped up, and that the defending Germans could take advantage of Normandy's 'bocage' landscape – a network of fields hedged by dense shrubs and stone fences that were perfect for ambushes. Allied progress was literally one metre at a time and there were many losses.

On 24th July, just under seven weeks after D-Day, the US Army held a line running east to west from Caumont over Saint-Lô to Lessay on the Channel coast. It was, however, supposed to have been in this position within five days of D-Day. And to top it all both sides had already lost more than 100,000 soldiers. Of course, it frustrated General Bradley. But at the same time he remained confident. He was convinced that it would only be a matter of time before his troops would have the opportunity to catch up with the schedule and more. The numbers spoke for themselves.

ALLIES RULED IN THE AIR

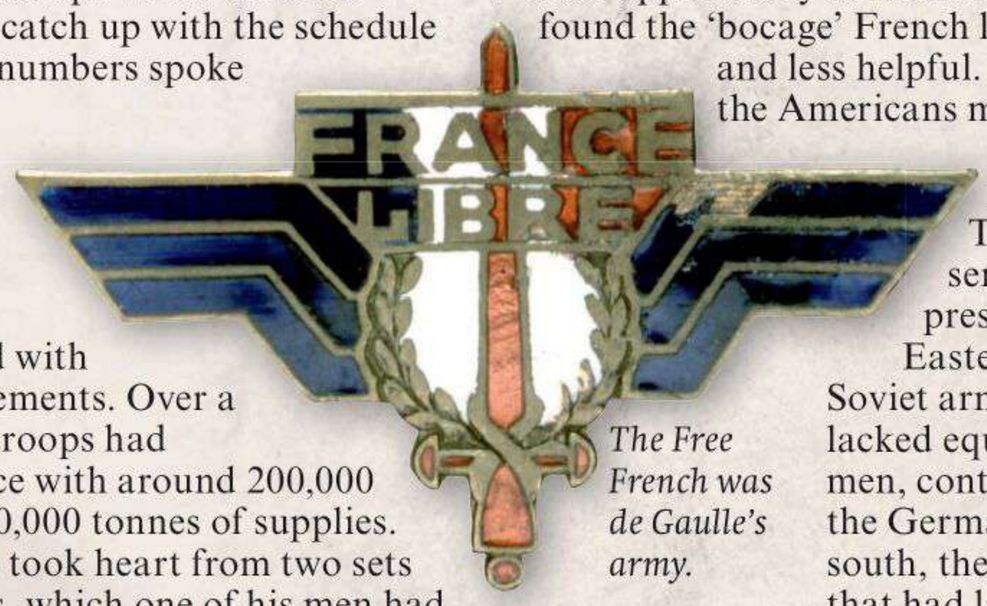
The invasion beaches teemed with Allied reinforcements. Over a million Allied troops had landed in France with around 200,000 vehicles and 570,000 tonnes of supplies.

Bradley also took heart from two sets of aerial photos, which one of his men had shown him. One showed the area behind the German lines where the roads were empty. The other showed the area behind the US lines. Here, there was almost chaos, because the roads were filled with dense columns of marching troops as well as trucks and tanks. In the fields beside the roads, there were huge stocks of supplies for the Allies.

And a significant detail that he noted was that none of the soldiers, vehicles or the supply depots were camouflaged.

There was no need because the Allies had total air superiority. From D-Day to the end of June, British and US aircraft had flown 67,000 offensive and 30,000 defensive missions. During the same period, the Luftwaffe had only mounted 13,000 missions. In addition, the Allies had established several airbases in France, from where they could quickly enter enemy territory. It had catastrophic consequences for the German forces, which now only moved at night and were not as flexible as they had been when they drove the British and French back into the sea in 1940.

Once the Americans broke through the German front line on 25th July, things went exactly as Bradley had planned – quickly. The Germans were sent on the run, had little opportunity to defend themselves and found the 'bocage' French landscape less and less helpful. Over 35 hours, the Americans moved 56 kilometres (35 miles) east. The Third Reich was seriously under pressure. On the Eastern Front, the Soviet army, which lacked equipment but not men, continued to push the Germans back. In the south, the Allied forces that had landed in Italy on 3rd September, 1943, had captured a large number of German troops. And on the Western Front, the chaotic German soldiers' retreat meant they could deploy no defences along the old Siegfried line on the border between France and Germany.



The Free French was de Gaulle's army.

US GENERAL THREATENS HITLER

The man behind the Allies' rapid advance had arrived exactly one month after D-Day on board a squadron of fighter planes that flew from



Marshal Pétain gradually became a German puppet in Vichy France.

MARSHAL PÉTAIN

■ **VICHY REGIME:** German-friendly governments were introduced in all German-occupied countries. In France, the Vichy Regime leader Philippe Pétain was made Marshal of France following WWI. A policy of collaboration was imposed on the government, but it was a gradual process. Eventually, Pétain was nothing more than a puppet for the German occupiers' policy. After the war, the former popular hero was sentenced to death for treason. The verdict was later overturned to life in prison by his former protégé, Charles de Gaulle.

Name	**Philippe Pétain**
Lived	**1856-1951**
Training	**Officer**
World War I	**General**
Between wars	**Ambassador**
1940-44	**Leader of the Vichy Regime**
After war	**Death sentence, commuted**



The two American generals Omar Bradley and J Lawton Collins discuss the capture of the French city of Cherbourg in July 1944.



On 25th July, fast P-51 Mustang fighter aircraft took part in a massive wave of airstrikes to herald Operation Cobra, the final Allied breakout from Normandy.



British bombers could fly freely in full daylight and carpet bomb German supplies.

Southern England to France. The identity of the important passenger on board was a secret, but he quickly revealed himself when, after an hour in the air, the planes landed in an airfield near Omaha Beach.

It was General George S Patton, flamboyant US army commander. Until now, he'd been in command of a ghost invasion army, the First United States Army Group (FUSAG), with a million soldiers whose goal was to fool the Germans into maintaining a strong presence in Calais. Now he was finally back on the front line.

General Bradley needed his aggressive style – and Patton was eager to fight. It was not long before the famous general attracted a large crowd of admirers and news-hungry journalists at the airbase; suddenly he jumped onto his Jeep and made an impromptu speech:

"I'm proud to fight here beside you. Now let's cut the guts out of those Krauts and get the Hell to Berlin. And when we get to Berlin, I am going to personally shoot that paper-hanging goddamned son of a bitch just like I would a snake." His speech ended, the crowd started cheering.

SUDDENLY THINGS MOVED QUICKLY

It was another three weeks before the Germans made their presence felt again. After Operation Cobra's success, the cavalry-trained general's expertise was now required to facilitate a rapid advance with a concentrated strength. Until now, the fighting in Normandy's 'bocage' landscape had been attritional, intensive infantry combat across a broad front. Now the battlefield shifted to a more rapid form of manoeuvre warfare known as "breakthrough" and "pursuit".

On 1st August, the US Third Army officially joined the war in France with Patton as its commander. Its first target was Brittany, and Patton acted quickly. In fact, his troops advanced so quickly that it surprised his superiors and opened up new tactical opportunities.

He laid down the philosophy behind his actions in his meticulously-kept diary:

"The thing to do is to rush them off their feet before they get set. Speed, audacity, even recklessness were what he [Bradley] wanted, not meticulous advances from one set point to another. Shake up the enemy, rough him up, tear the campaign wide open. To hell with compromises."

The Allies secured Brittany much more quickly than expected, while the rest of the Allied army mopped up the last traces of resistance in Normandy. When the battle for Normandy was settled after 75 days, the Allies had lost up to 209,672 men,

CHARLES DE GAULLE

■ **FREE FRENCH:** De Gaulle had fought in the French Army during World War I and against the Germans in 1940 before being exiled to London where he founded the Free French Forces becoming a central figure in the French Resistance Movement. He was even involved in the action against the Germans in Algeria and arrived in France on 14th June, after D-Day. When the Allies entered Paris, the de Gaulle and the French Forces lead the way. After the war, de Gaulle founded the Fifth Republic of France and was president for ten years.

Name	**Charles de Gaulle**
Lived	**1890-1970**
Training	**Officer**
World War I	**German prisoner of war**
Between wars	**Military career**
1940-45	**General, Free France**
After war	**President 1959-69**



Charles de Gaulle fought the Germans from exile.

THE NET CLOSED AROUND NAZI GERMANY



By the end of 1944, the web began to tighten on the Third Reich in earnest. The Allies pushed on from all sides, and there was only a few months of pause over winter before spring came with massive offenses, all of which headed towards Berlin – and Adolf Hitler.

German-controlled areas

Areas controlled by the Allies

0 500 km

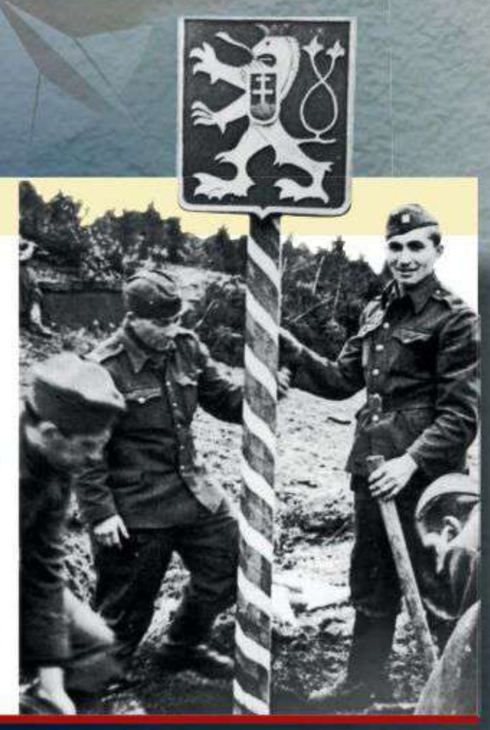
WESTERN EUROPE

By December 1944, all of France and Belgium were in Allied hands. They now stood by the Rhine, but faced fierce opposition from German forces behind the so-called Siegfried Line – a wall of defences on the border with Germany. The Germans also managed one last offensive in the Ardennes. It wasn't until the spring of 1945 that the Allies entered Germany.



EASTERN EUROPE

The Red Army pushed forward, now that fronts had been opened in both Southern and Western Europe, which were occupied by German forces. In October 1944, Greece was liberated. Albania, Yugoslavia and Budapest followed in December. One of the bloodiest battles on the Eastern Front played out in the Dukla Pass between Poland and Czechoslovakia, and the liberation of Czechoslovakia dragged on.



SOUTHERN EUROPE

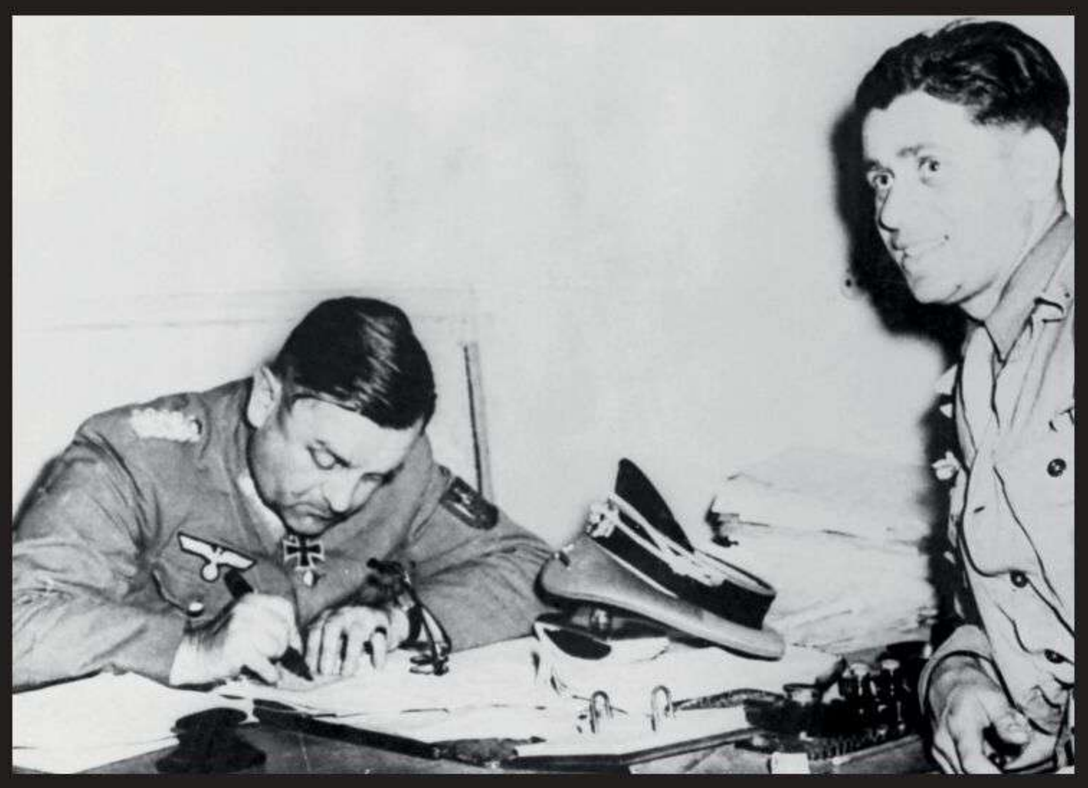
The Allies went ashore in southern Italy in September 1943 and headed north. Rome was captured shortly before D-Day, but progress stalled north of Florence. It wasn't until the spring of 1945 that partisans and Allies took full control of the country. Its fascist leader Benito Mussolini tried to flee, but was captured and executed. On 29th April, 1945, the Axis Powers surrendered in Italy.



As the war turned, more and more Germans surrendered to the Allies.



RESISTANCE: civilians, both men and women, joined the fight for liberation. Often they used weapons and helmets reclaimed from the Germans.



THE SURRENDER: the German military governor of Paris, Dietrich von Choltitz, defied Hitler's order when he spared the city and surrendered it.

39,976 of them killed, the rest either wounded or missing. The German army was reduced by about 450,000 men, including 240,000 killed.

After the war, Eisenhower argued WWII was actually won during the summer of 1944 – on the beaches, in the Normandy bocage and in France's medieval cities. The question was where the Allied resources would be used next.

Paris or Berlin?

The British and US generals, including the otherwise rebellious Patton, were in full agreement on where they thought their troops should go. They were going east, towards Germany, Berlin and Hitler. Although French general and future politician Charles de Gaulle determinedly pressed for the liberation of Paris, which was under Wehrmacht control – for the sake of the French peoples' self-respect – the Anglo-American alliance could see no reason to spend time and resources taking control of the rest of France, including Paris. The reasoning was that as soon as Hitler was out of action, his forces in Paris and elsewhere would be too.

Bradley explained why after the war:

"Tactically, the city had become meaningless. For all its past glories, Paris represented nothing more than an inkspot on our maps to be bypassed as we headed toward the Rhine. Logistically it could cause untold trouble, for behind its handsome facades there lived 4,000,000 hungry Frenchmen."

The Allies worked out that it would require 4,000 tonnes of supplies a day to support Paris, which was about what was needed to bring Patton's Third Army three days closer to the German border.

But the French had other plans. On 19th August, the capital's resistance movement rose up, and as there were only a small number of rebels, even in relation to the greatly reduced German contingent in the city, General Eisenhower felt compelled to override the decision to go to Berlin and to send forces to their rescue so that the rebellion did not end in carnage.

To Paris' great fortune Dietrich von Choltitz, who was Hitler's military governor of Paris, defied the increasingly irrational Führer's orders to blow up Paris' landmarks and burn the city to the ground in the event of an Allied attack. On 22nd August, Choltitz told Pierre Taittinger, chairman of the municipal council, and Swedish consul Raoul Nordling of Hitler's order, and said he could not postpone implementing it for much longer. He asked the Swede to contact the Americans so they could come to the rescue as soon as possible.

1,500 was the number of tanks that the Germans had in Normandy. Only 24 made it back across the Rhine.

French troops take the lead

Nordling had a heart attack soon after, and by the time his brother was dispatched with a message, Eisenhower had already decided to come to Paris' rescue. At the same time, Eisenhower decided to honour de Gaulle's plea to let the French 2nd Armoured Division, which was part of the invasion force, lead the way into Paris under General Jacques Leclerc.

The French troops, followed by their American colleagues, entered Paris on 25th August, encountering only weak resistance.

On the same day, France's capital was declared liberated. The remaining Germans and German-friendly French were effectively subdued when de Gaulle persuaded Eisenhower to have the US 4th Armoured Division advance through Paris on its way east, while the US 28th Infantry Division marched down the Champs-Elysees "on its way to assigned attack positions north-east of the French capital".

Paris had been liberated 80 days after D-Day. There were no more detours to come: the next target was Berlin. ■



Defeated German soldiers were both kicked and scorned on their way to the prison camps.

COVER
Gettyimages, Shutterstock.

HISTORY'S BIGGEST OPERATION
P. 2: Bettmann/Getty Images.

CONTENTS
P. 4: AP/Polfoto, Shutterstock, Ullstein/Polfoto, Wikimedia, P 5: Time & Life/Getty Images, Mary Evans/Scanpix, Olive-Drab.

TIMELINE
P. 6: Wikimedia, www.globalresearch.ca, Galerie Bilderwelt/Getty Images, Roger-Viollet/Polfoto, P 6-7: US Signall Corps Photo/Wikimedia, Getty Images, P 7: Polfoto, P 8: Polfoto, Wikimedia, Imperial War Museum (TR 2313), Polfoto, P 8-9: Getty Images, Wikimedia, P 9: Scanpix, P 10: Polfoto, Tamara Krisler, Bletchley Trust, Shutterstock, www.flightglobal.com, Getty Images, P 11: Bridgemann/Scanpix, Bundesarchiv (Bild: 183-G0627-500-001) – kolorering: Jay Holland, Wikimedia.

PRELUDE TO D-DAY
P. 12-13: Imperial War Museum (TR 1629), P 14: Wikimedia, Bridgeman/Scanpix, iStockphoto, Wikimedia, Wikimedia, U.S. Signal Corps Photo/Wikimedia, P 15: Wikimedia, Mary Evans/Scanpix, Wikimedia, Bridgeman/Scanpix, Shutterstock, P 16: Getty Images, Gary Ombler/Dorling Kindersley Images, Wikimedia, Wikimedia, Wikimedia, P 17: Bridgeman/Scanpix, Wikimedia, Wikimedia, Wikimedia, P 18: Wikimedia, P 18-19: Getty Images, Hans Wild/Time Life Pictures/Getty Images, P 19: akg-images/Scanpix, Wikimedia.

THE ATLANTIC WALL
P. 20-21: Ullstein/Polfoto, P 22: Wikimedia, www.militaryimages.net, Bundesarchiv/Wette (Bild 101I-263-1580-05), Ullstein/Polfoto, P 23: Ullstein/Polfoto, P 24: Ullstein/Polfoto, Ullstein/Polfoto, Andree Stephan/Wikimedia, P 24-25: Roger Viollet/Getty Images, P 25: Wikimedia, Getty Images, Kystcentret Thyborøn, R. Smid Gouda/Holland, www.bunkerpictures.nl, Tim Brighton/Wikimedia, P 26: Claus Lunau, P 27: Wikimedia, A. Nilssen Photography/Flickr, Martin Vahl, Martin Vahl.

THE GREAT DECEPTION
P. 28-29: Roger Viollet/Polfoto, P 30: Wikimedia, www.mediad.publicbroadcasting.net/shared/npr/201207/156190012.jpg, Corbis/Polfoto, P 31: Corbis/Polfoto, Bridgeman/Scanpix, Bridgeman/Scanpix, Getty Images, Bridgeman/Scanpix, P 32: Imperial War Museum (NA 14415, H42527, H 42535), P 33: Imperial War Museum (H442530), The National Archives, London, The National Archives, London, P 34: Ullstein Photo, Getty Images, P 35: Shutterstock, Bletchley Trust, Tamara Kreisler, www.americainwwii.com, Wikimedia, Tamara Kreisler, Wikimedia, P 26: gozmodo.com, www.photostab.ru, Dorling Kindersley Images, bicyclecards.com, International Spy Museum, Wikimedia, P 37, Imperial War Museum (HU 66759), Wikimedia.

FRANCE REBELS
P. 38-39: Corbis/Polfoto, P 40: Shutterstock, Wikimedia, France Soir/Wikimedia, Charbonages de France/Wikimedia, P 40-41: Time Life Images/Getty Images, P 42: Imperial War Museum (INS43108), P 42: Hulton Archive/Getty Images, Wikimedia, Roger Viollet/Polfoto, Wikimedia, P 43: Getty Images, Getty Images, Wikimedia, Roger-Viollet/Polfoto, Wikimedia, Polfoto, P 44: Getty Images, Imperial War Museum (EPH 4313), P 44-45: Getty Images, P 45: Getty Images.

THE NIGHT BEFORE
P. 46-47: Imperial War Museum (H39070)/Getty Images, P 48: Getty Images, Adrian Pingstone/Wikimedia, Shutterstock, Ullstein/Polfoto, P 48-49: Polfoto, P 49: James Parker/www.topkickmilitaria.com, P 50: Getty Images, Dorling Kindersley Images, www.rockislandaution.com, Jean-Louis Dubois/Wikimedia, Ullstein/Polfoto, P 51: Dorling Kindersley Images, www.warhats.com, James Parker/www.topkickmilitaria.com, P 52: Imperial War Museum (CL 59)/Getty Images, www.ibiblio.org, P 53: Wikimedia, Wikimedia, www.made_in_america.com, Polfoto.

NORMANDY LANDINGS
P. 54-55: Polfoto, P 56: Wikimedia, Polfoto, P 56-57: Imperial War Museum (B5245), P 58: www.historylink101.com, www.ddayoverlord.com, Reuters/Scanpix, P 58-59: Wikimedia, 59: APF/Scanpix, Wikimedia, National Archives USA/Wikimedia, National Archives Canada/Wikimedia, Scanpix, P 60-61: Polfoto, P 61: www.collectorsweekly.com, P 62: Wikimedia, Dorling Kindersley Images, Polfoto, Scanpix, P 62-63: Getty Images, P 63: Polfoto, P 64: National Archives/Wikimedia, Getty Images, P 64-65: Mary Evans/Scanpix, P 65: The Royal Artillery Museum.

UNIQUE WAR MACHINES
P. 66-67: Imperial War Museum (H 35176), P 68: www.militaryforums.co.uk, Wikimedia, P 68-69: Time & Life/Getty Images, P 69: BBC, Imperial War Museum (INS 5124), P 70: Wikimedia, Wikimedia, Wikimedia, P 70-71: Imperial War Museum (TR2313), P 71: Wikimedia, Wikimedia, IMW (H20697)/Getty Images, P 72: Hulton Archive/Getty Images, Polfoto, www.ww2militaria.wordpress.com, Wikimedia, P 73: Imperial War Museum (MH 2215).

THE DAYS AFTER
P. 74-75: Hulton Archive/Getty Images, P 76: Wikimedia, www.worldwar2aces.com, Desert Rats Association, P 76-77: Polfoto, P 77: Shutterstock, P 78: Gerry Images, Osprey Publishing, P 79: Ullstein/Polfoto, Osprey Publishing, P 80: US Army/Wikimedia, Getty Images, Wikimedia/US Army, P 81: National Archive USA/Wikimedia, Getty Images, National Archive USA/Wikimedia, Bundesarchiv (Bild 101i-494-3376-20A), Bill Shea/www.therupturedduck.com, Flickr.

YOUTH UNDER FIRE
P. 82-83: Bundesarchiv (Bild 183-G0627-500-001) – kolorering: Jay Holland, Vera, Bundesarchiv/Ludwig (Bild 101III-006-19), P 84-85: Scanpix, P 85: Bundesarchiv/Kurth (Bild 1017-297-1740-19A), P 86. Bridgemann/Scanpix, wehrmacht-awards.com, Militaria Etzel Antiquitäten, P 87: Getty Images, Bundesarchiv/Wilfred Woscidlo (Bild 101I-297-1722-29), Bundesarchiv/Wilfried Woscidlo (Bild 146-1989-099-06), Archives Normandie/Wikimedia, Wikimedia, www.secondguerre.net, Popperfoto/Getty Images, P 88: www.militarymodelling.com, AP/Polfoto, P 89: Bridgemann/Scanpix, Wikimedia, Polfoto.

LIFE IN THE SHADOW OF WAR
P. 90-91: Getty Images, P 92: Getty Images, Getty Images, Getty Images, P 93: Getty Images, Getty Images, tts-group.co.uk, Corbis/Polfoto, Getty Images, Getty Images, P 94: Getty Images, Getty Images, Getty Images, Getty Images, Getty Images, Classic Style of Fashion/Flickr, Getty Images, Getty Images, Shutterstock, Getty Images, P 96: Getty Images, Getty Images, Getty Images, Himes/National Archives USA, P 97: Getty Images, Getty Images, State Historical Society of North Dakota, State Historical Society of North Dakota, Getty Images, Getty Images, Getty Images.

LOGISTICS OF WAR
P. 98-99: AP/Polfoto, P 100: Popperfoto/Getty Images, P 100-101: Library og Congress/Wikimedia, P 101: Roger Viollet/Polfoto, Scanpix, Bridgemann/Scanpix, P 102: Getty Images, Getty Images, Getty Images, Hartlepod Library Service & Swansea Museum, P 103: Getty Images, Getty Images, P 104: Getty Images, Getty Images, Getty Images, P 105: Dorling Kindersley Images, Getty Images.

GERMAN DEFEAT IN EAST
P. 106-107: Polfoto, P 108: Espenlaub Militaria/www.aboutww2militaria.com, Shutterstock, Polfoto, P 108-109: akg-images/Scanpix, Shelvs2/deviantart.com, P 110: Rianovosti/Scanpix, P 111: Ullstein/Polfoto, P 112: Polfoto, akg-images/Scanpix, Rianovosti/Scanpix, P 113: Espenlaub Militaria/www.aboutww2militaria.com, akg-images/Scanpix, akg-images/Scanpix, Russian State Archive.

NEXT STOP: PARIS
P. 114-115: PhotoQuest/Getty Images, P 116: Roger-Viollet/Getty Images, Alexander Roberts/Wikimedia, Getty Images, P 117: Popperfoto/Getty Images, P 118: Getty Images, www.oocities.org, PhotoQuest/Getty Images, IQM/Getty images, AFP/Getty Images, P 120: Keystone/Getty Images, Getty Images, Keystone/Getty Images, Getty Images, P 121: AP/Polfoto, AP/Polfoto, Corbis/Polfoto.

124 PAGES

FOLLOW THE TACTICS WITH DETAILED MAPS

History's biggest military operation

It was just before 23.00 on 5th June, 1944. The elite paratroopers synchronised their watches as they nervously awaited takeoff. In a few hours, they would plunge into German-occupied Normandy – the first wave of the biggest military operation in history. They had to capture key targets and weaken German defences inland so that tomorrow's assault on the beaches could go ahead as planned. Months of training had passed. Now, at last, the Allies would fight back. This was D-Day.

AMAZING PHOTOS

EYEWITNESS HISTORY

MINUTE-BY-MINUTE COVERAGE – AS IT HAPPENED

HIGH QUALITY ILLUSTRATIONS

History
BONNIER
Publications International

★ THE ULTIMATE HISTORICAL ADVENTURE ★